Drug & Cosmetic INDUSTRY

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Drug & Cosmetic INDUSTRY

APRIL 1942

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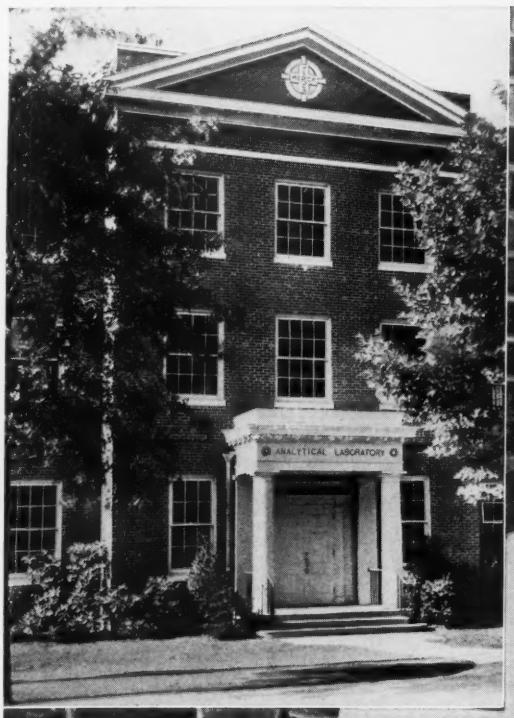

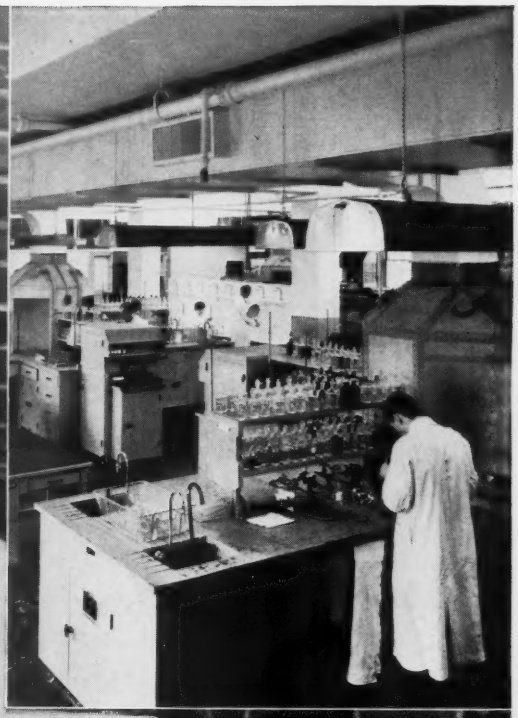

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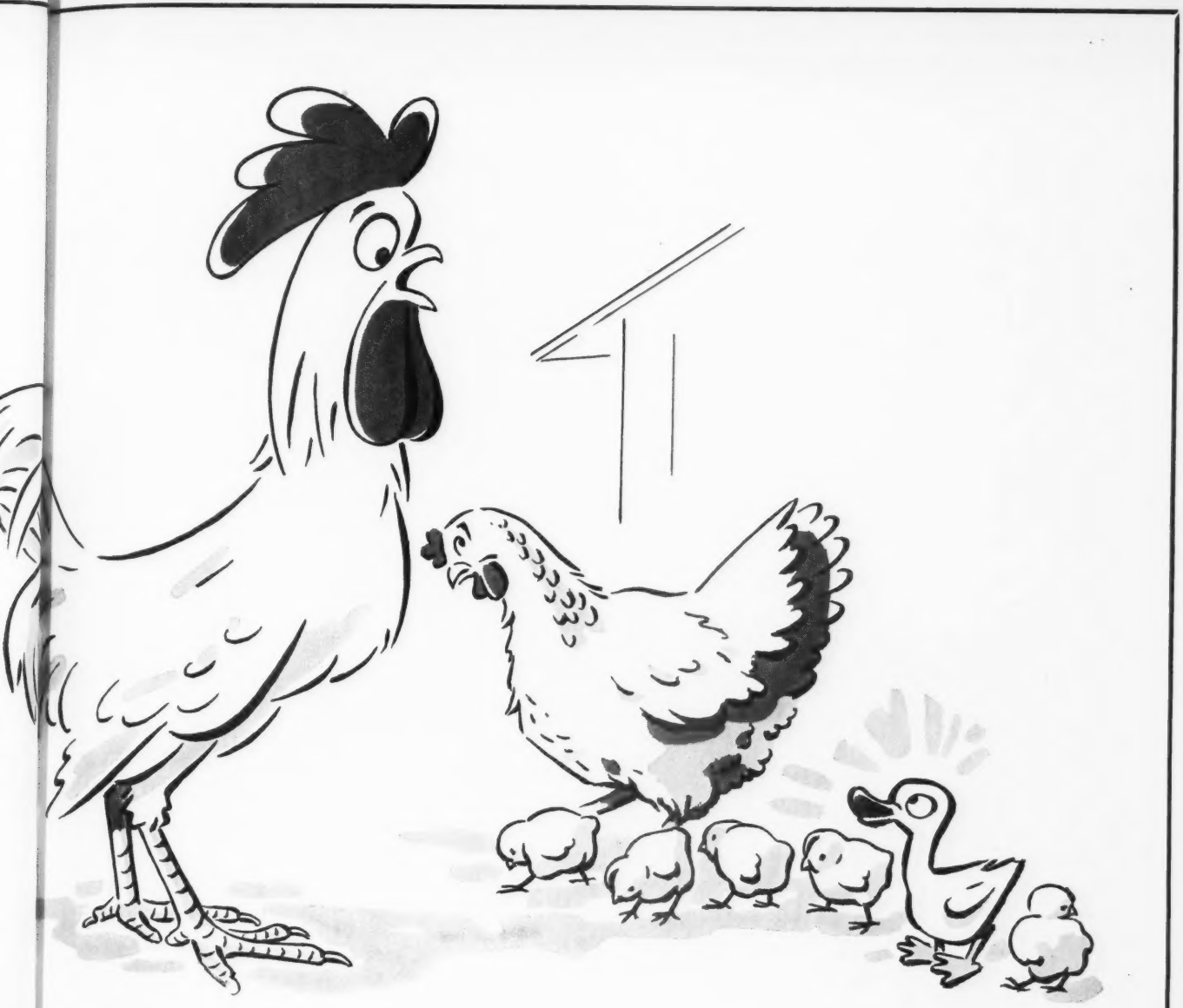

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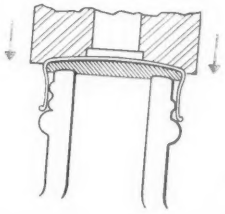

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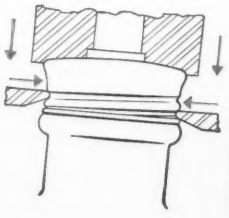

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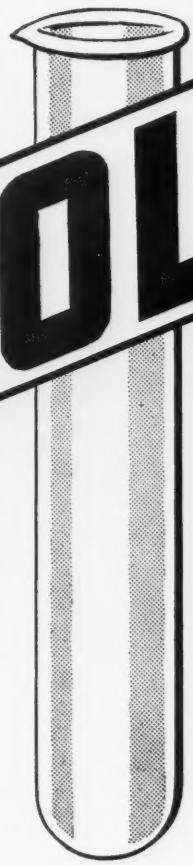

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INSIDE NEWS

APRIL PREPARED BY NATIONAL CAN CORPORATION, NEW YORK, N. Y. 1942

Weather Proving Grounds ... Part of National's Research On Coatings

The investigation of protective and decorative coatings for containers forms an important part of research laboratory activity. New materials are being developed constantly and these materials must be thoroughly tested with respect to the functions they should serve. The Chemical Division is continually in touch with all the new developments produced by the coating material manufacturer and these new developments are investigated as they become available. Many problems arise which require the use of special coating materials and special methods of application to provide a coated container to serve a particular purpose. To meet these problems the sources of coating materials must be consulted, their recommendations obtained, and then the recommended coatings tested both in the laboratory and under actual commercial production conditions.

The investigation of coating materials involves the application and proper baking of the materials and fabrication, storage and resistance tests. These tests often require extensive packing and processing tests under conditions similar to actual cannery practice. Storage tests are carried out under normal and also under unusually severe conditions.

The accompanying photograph shows one type of outdoor exposure test used to determine the comparative resistance of exterior can end finishes to extremely severe conditions.

At the present time, due to shortages of tinplate which increase the requirements for enameled steel, the increase in the number of special problems raised in relation to defense work, and actual shortages and necessities for replacement of coatings due to priorities, the research activities of the laboratory concerned with protective coatings have been greatly increased. By means of increased activity and study the serious problems raised will be met and solved to provide satisfactory protective coatings on containers which must be produced during the present emergency. RESEARCH IS ORGANIZED THINKING. (100)

The photograph illustrates a type of outdoor exposure test used to compare the resistance of coatings to weathering conditions. Can ends are fabricated from coated stock, double seamed on cans and placed on a rack exposed to natural outdoor conditions, such as sun, rain, and daily variations in humidity. The behavior of coatings under these conditions is followed by continual observations for breakdown.

Gelatin Coated Meats

A staff of laboratory technicians at the Quartermaster Corps has developed "defense" hams and bacon — special gelatin-coated meats cured in about half the ordinary time. The gelatin coating holds the flavor and helps preserve the meat, it is declared. These new processes may affect for the better Americans' dietary habits long after the emergency has passed, it is stated. (101)

New Fruit Juice Blend for Canning

During the past year, several noteworthy blends of fruit juices have been perfected for canning by the Agricultural Experiment Station at Geneva, New York. In addition to Apple-Raspberry Juice, which was given consumer tests, blends of Plum-Apple Juice and Cherry-Apple Juice have been developed.

Since better color and flavor, as well as yield, are attained, the juice is prepared from frozen berries and blended with freshly pressed apple juice. Like apple juice, it is not clarified but is de-aerated and flash pasteurized at 170 to 175 degrees.

It has been observed that the change or darkening in the color of apple juice after pressing is related to change in flavor and to the degree of sedimentation in the juice. By rapid handling of juice, the original flavor and color are retained and very little sediment is formed in the pasteurized juices. The studies on fruit beverages, such as cherry cocktail, peach juice or nectar, blends of strawberry, rhubarb, and others, are being continued.

Particular attention is being given to the blending of vegetable juices, such as those from celery, carrots, and beets with sauerkraut juice, enough of the latter being added to raise the acidity in order that low temperature flash pasteurization may be used. By using low pasteurization temperatures rather than pressure cooking, more of the original quality of the vegetables is retained. (102)

Research for Camouflaging

For some time chemists in the United States have been working on a type of paint that would absorb light and not reflect it. The purpose of this research is to develop a coating suitable for camouflaging concrete highways leading to important industrial centers, bridges, oil tanks and other objectives. (103)

Soap Notes

New grades of American pumice have been made available to hand soap manufacturers to replace ingredients which were formerly imported, supplies of which have now been cut off because of the war in Europe.

Experimental work is proceeding on materials to be added to toilet soap which will render the soap antiseptic and germicidal while at the same time having no unfavorable effect on such other properties as color, odor, etc.

Revised specifications are being considered for U.S.P. Soft Soap for the new edition of the U. S. Pharmacopoeia. The principal change is a liberalization of the formula, allowing for the use of other oils than linseed. (104)

(Advertisement)

BY NATIONAL CAN

APRIL PREPARED BY NATIONAL CAN CORPORATION, NEW YORK, N. Y. 1942

Vitamins From Tobacco

Scientists of the U. S. Department of Agriculture predict that thousands of acres in the nation's tobaccoland may be put to work producing a special kind of tobacco, Nicotina Rustica, as a source of nicotinic acid, the pellagra-preventing member of the vitamin B complex. Chemists at the new Eastern Regional Research Laboratory in Philadelphia are working to perfect the use of nicotine for making the vitamin product at a cost competitive with the coal tar source. They say that if only nicotine were used in making all the nicotinic acid required this year in the United States, it would take from 17 to 20 million pounds of tobacco. (105)

Sunflower Oil For Varnishes

Promising results are reported in the production of alkyd varnishes with raw sunflower oil instead of linseed oil. (106)

Soy Bean Shortening

Of the more than 400 million pounds of soy bean oil produced last year, more than half went into the production of vegetable shortenings. Because of the prospects for large exports of lard to Europe in 1942 and the expansion of demand for soy bean oil from other consumers, the department of agriculture has set a soy bean production goal for next year 18 percent above present levels. (107)

New Talc Deposits

Large new deposits of talc have been found in the U. S. and Canada and are being operated to replace talc previously imported from Italy, India, Manchuria, etc. A deposit in Newfoundland will soon be mined and processed. Cosmetic powders, containing talc, are valued at more than twenty-five million dollars annually at wholesale prices. (108)

Canada Cans Apple Juice

Because of the declining market for fresh apples, growers of the Okanagan Valley in British Columbia are processing and canning apple juice. About 300,000 gallons of the juice will be put on the market this year.

New apple products have also been developed. These products include "Fruit Coffee" produced in a form resembling coffee in appearance and taste, and "apple powder". Loss of the apple export trade in Western Canada, amounting to about 50 percent of the total annual pack of apples (about 5,000,000 boxes) has made these new outlets for the surplus important. (109)

Ventilation For Good Paint Jobs

Lack of proper ventilation sometimes causes paint to peel from barns. Formerly barns were loosely constructed and the moisture given off by the animals was almost immediately carried away. With the tightly constructed buildings of today it is important to make sure there is proper ventilation to remove this excess moisture. (110)

Red Bread

Red bread—colored by tomato juice—is being made experimentally by the Army. The added ingredient increases vitamins in the bread—especially Vitamin A, which helps prevent night-blindness. It is the vitamin night-fliers in England are reported to be using to increase their sight in the darkness. (111)

Asparagus For Insulating

The tough ends of asparagus stalks are being studied by research men as a raw material for defense products. Research men say experiments have indicated that asparagus stalk fiber is a good insulating board material. Disposal of the stalks has been a serious problem for canners in California. (112)

Canned Smoked Salmon

A new item in canned fish is making its appearance on the San Francisco market in the form of canned smoked salmon. Choice salmon is first smoked and then packed in quarter-pound flat tins, like sardines, with use being made of sesame oil. (113)

Tires From Molasses

We may yet ride on molasses tires, according to one of Akron's synthetic rubber specialists. He reports that it is perfectly possible to make passenger-car tires from synthetic rubber produced from molasses and that he himself used molasses as a source of synthetic rubber in his early research on that product. (114)

Technical Topics

A COMPLEX SODIUM-IRON PYROPHOSPHATE is suggested for use in the mineralization of foodstuffs. The compound, it is stated, makes iron readily available, yet holds it in a chemically combined form whereby it has no deleterious effect on the foodstuff. (115)

A SOLUTION OF CHLORINATED RUBBER, containing dibutyl phthalate and a bactericide, has been found of value for the preservation of the cordage used in sea-fishing nets, according to Canadian investigations. (116)

TETRAMETHYLTHIURAM DISULPHIDE has been found an effective agent for the control of brown patch and other turf diseases in recent investigations. Application at the rate of four ounces for each 1,000 square feet was found to afford complete control of various diseased conditions. (117)

NICOTINIC ACID CONTENT determination in foodstuffs and similar products by a new colorimetric method is described in recent British literature. In the simple method described, small quantities of the acid are determined indirectly by precipitation with phosphomolybdic acid and reduction of the nicotinic acid-phosphomolybdate complex with stannous chloride. (118)

CONTRARY TO GENERAL BELIEF, the caffeine and theo bromine content of coffee, cocoa and other foods has no harmful effect upon consumers. Studies made by a well-known scientist show that practically every person consumes caffeine and theobromine containing foods and beverages very frequently and consumes appreciable quantities of caffeine and theobromine with no noticeable bad effects. (119)

HYDRATED MONOCALCIUM PHOSPHATE has been found of value as a coating agent for the acid constituent of baking powders in that it retards the speed with which the acid reacts with the soda bicarbonate during dough mixing. An over-rapid reaction causes much of the carbon dioxide gas to be lost before the dough has reached a point where the dough can retain the gas. Additional gas retained by the baked products tends to a larger volume, and increased lightness in such products. (120)

For further information on any of these articles write to National Can Corp., 110 E. 42nd Street, New York City. Please mention the number at end of article—also name of the magazine you saw it in.

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THE PROBLEM OF SUBSTITUTION

YEAR AFTER YEAR the Cosmetic Industry has steadily progressed toward the goal of producing finer and more intriguing products. New items have been added regularly to the ever growing stream. Many an old item has been given a new and more modern guise. Heretofore, substitution has not been necessary.

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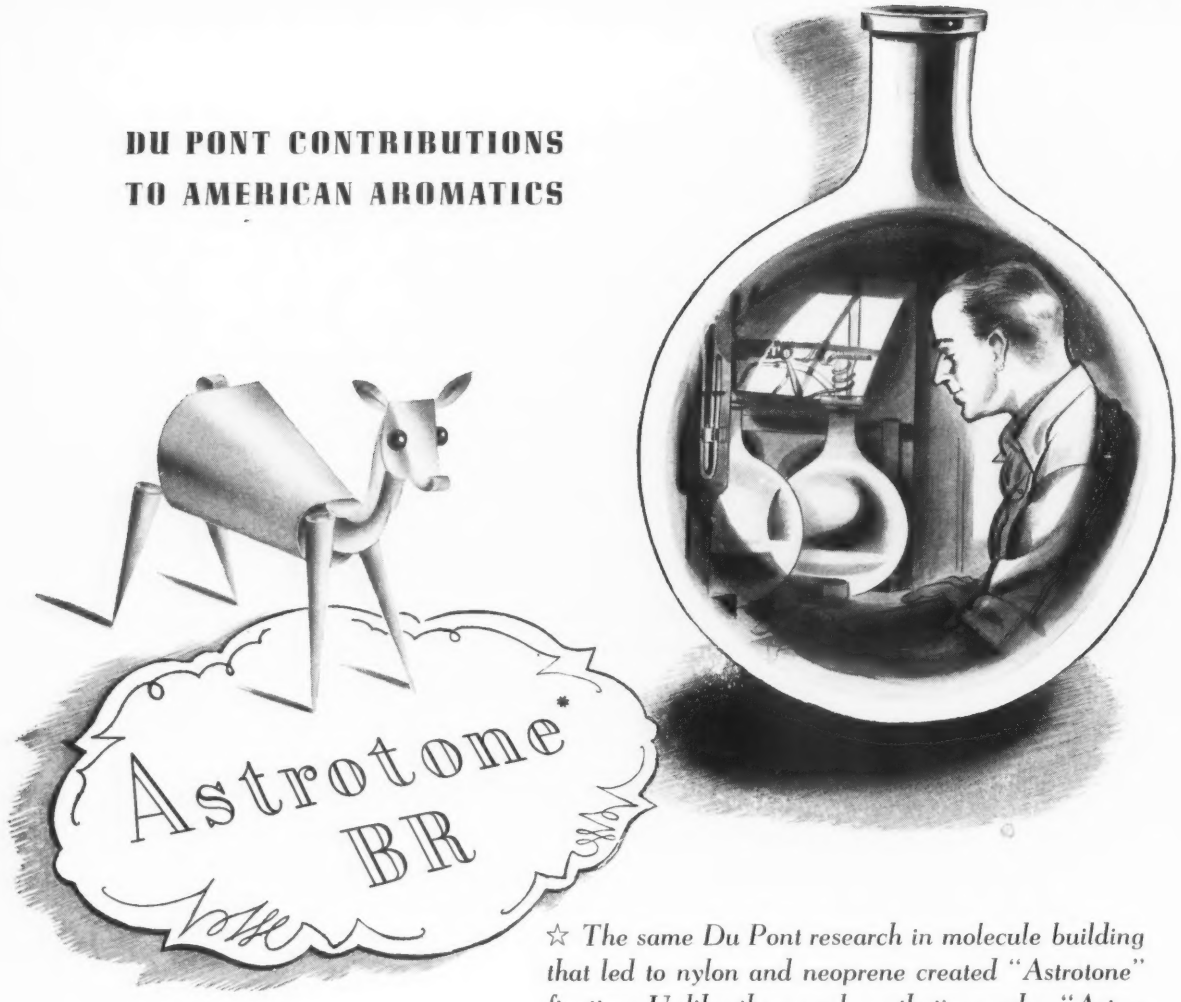
DU PONT CONTRIBUTIONS TO AMERICAN AROMATICS



☆ *The same Du Pont research in molecule building that led to nylon and neoprene created "Astrotone" fixative. Unlike the usual synthetic musks, "Astrotone" is a member of the family of large ring compounds to which natural musk belongs. More than this, it is a well defined chemical body — pure and uniform. It is colorless — and imparts no color to products in which it is used.*

Several years before present world conditions created a shortage of musks, "Astrotone" fixative was used in some of the finest perfumes. Today, many users know that it serves the purpose of the old type musks. And "Astrotone" has the advantage of constant purity, quality, and strength.

"Astrotone" may be used to replace infusions of natural musk. As a fixative in fine perfumes, it gives rich harmony — leaves a sweet, warm note after other odors fade. It is also used for powders and to replace nitro musk in creams.

*TRADE-MARK REG. U. S. PAT. OFF.

DU PONT
Aromatics

★ *A number of Du Pont contributions, of which "Astrotone" is one, are helping the perfumer to carry on in this difficult period. In many formulations, the constant strength, purity, and odor quality of synthetic aromatics prove superior to those of natural compounds.*

E. I. DU PONT DE NEMOURS & CO. (INC.), FINE CHEMICALS DIVISION, WILMINGTON, DELAWARE

INDUSTRIAL PRODUCTS BY FERMENTATION PROCESSES

NOAH has received credit for one of the earliest recorded chemical discoveries. He found that under some conditions grape juice underwent a change and the resulting product, when imbibed, produced a pleasant physiological effect entirely different from that which the original juice gave. Unfortunately, as a result of continuing his testing "not wisely but too well", he has received some undesirable notoriety

It was also observed at an early date that sometimes fruit juices underwent another type of change which resulted in the development of sourness. Milk was also found to become sour on storage. Since the resulting products found practical use, empirical methods of regulating these alterations were developed.

Not until the investigation of Pasteur was it recognized that these changes were due to the growth of various microscopic organisms. It had been noticed earlier, however, that the development of visible organisms, termed molds, also resulted in changes of the medium on which they grew.

Since Pasteur a large number of experimenters have developed methods not only of preventing, but also of encouraging, the growth of these organisms, both visible and microscopic. Others have studied the chemical changes brought about by them. It is now recognized that these reactions are similar to, or in many cases the same as, those occurring during the development of a fruit or vegetable and are natural vegetative processes.

As a result of some of these researches a considerable variety of products of industrial importance is now being manufactured by the careful cultivation of a number of these organisms. Since this is a comparatively new field, it can safely be assumed that with time the number of compounds produced by such methods will be greatly enlarged. The probability of this is increased by the fact that the raw materials for such processes are generally of American agricultural origin, thus removing any dependence on foreign products.

Chas. Pfizer & Co., Inc. has been one of the leaders in this field and is at present producing Citric Acid, Gluconic Acid, Fumaric Acid, and Oxalic Acid by such methods. From these acids a wide variety of derivatives is being manufactured. A well-trained research staff is engaged in the improvement of present processes and in the development of new products. Results in many of these latter investigations indicate that products of possible importance in a variety of fields will in time be made available.

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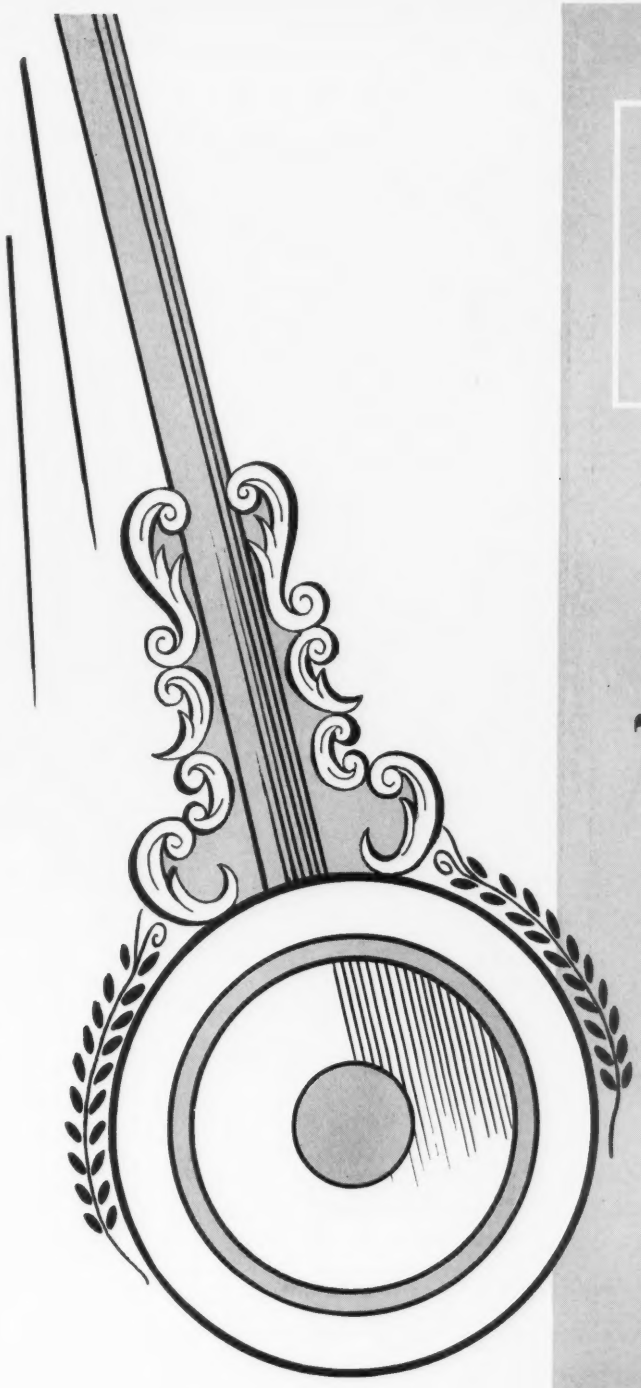

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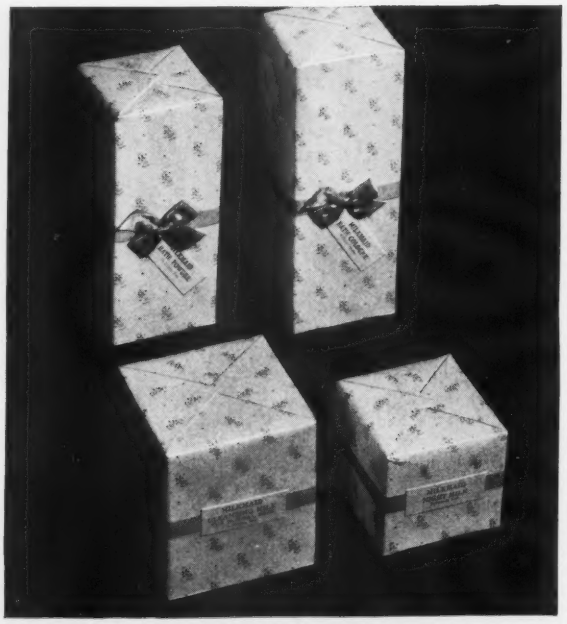

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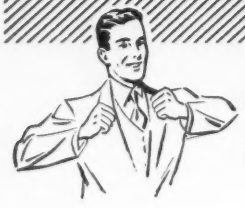

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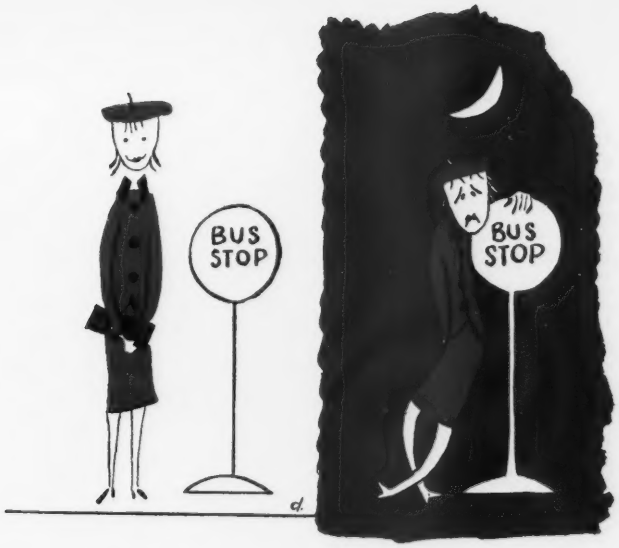

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30-57

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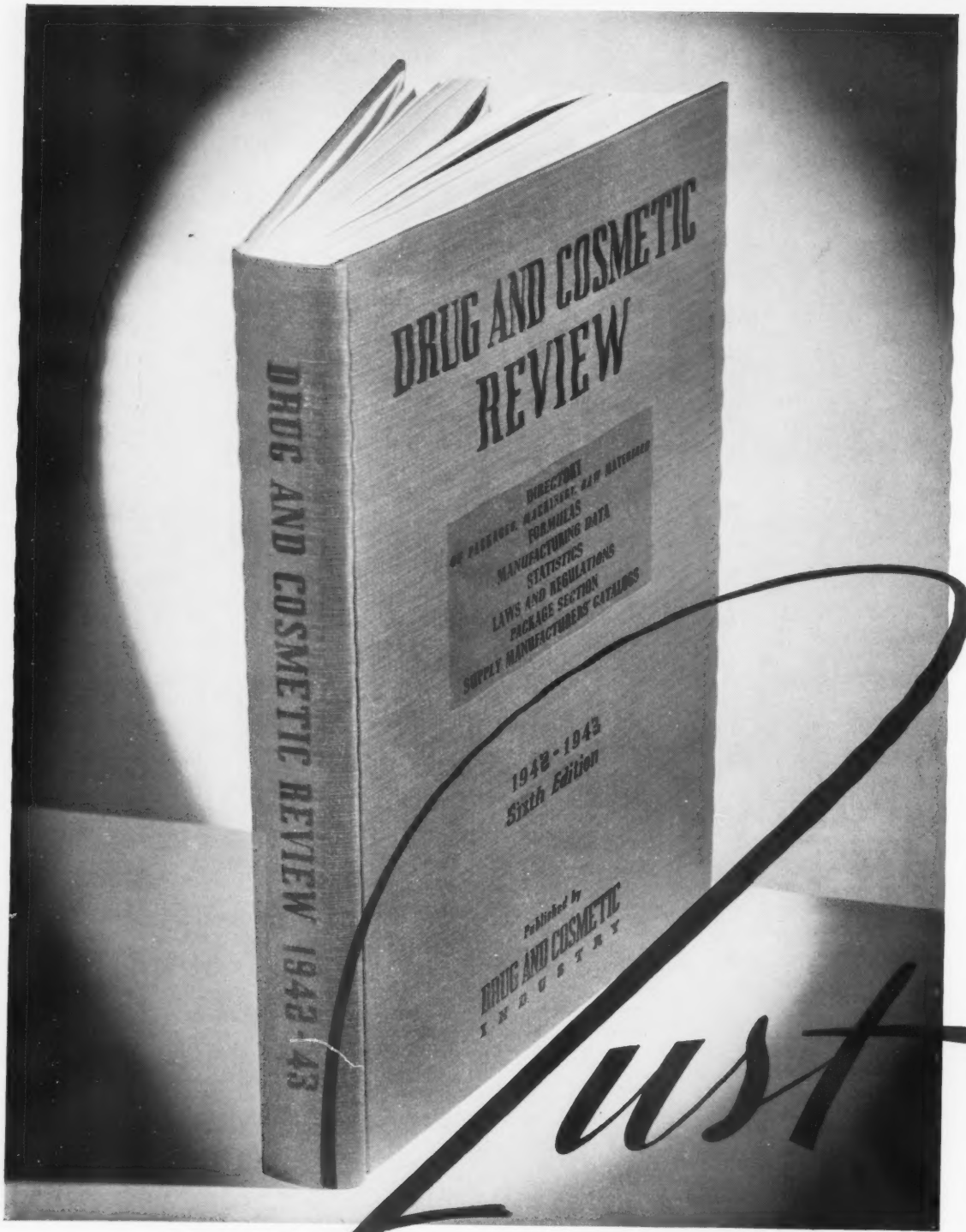

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DRUG & COSMETIC INDUSTRY

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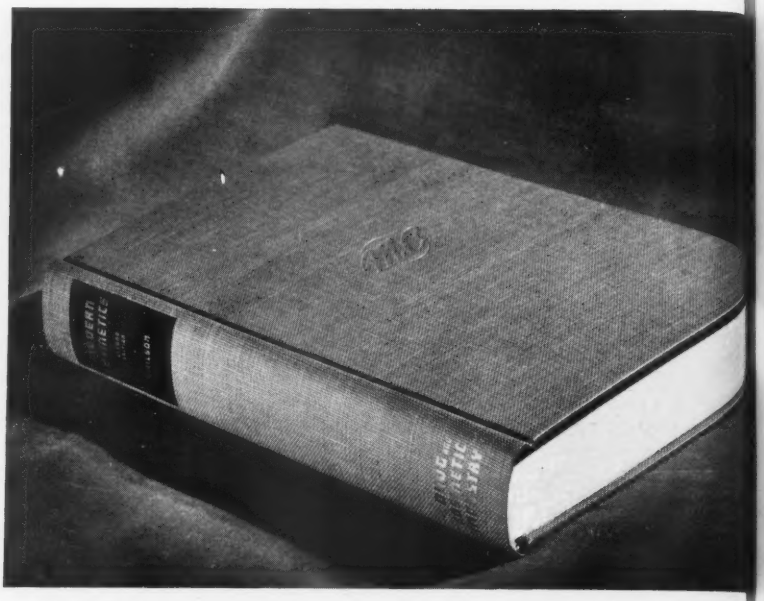
COSMETIC FORMULAS

MODERN COSMETICS

by

FRANCIS CHILSON



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DRUG & COSMETIC INDUSTRY

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He's an Owens-Illinois Packaging Research Engineer. Through him, our years of technical experience in handling empty and filled packages—in studying processing and production lines, is available to you.

How can he help you? Frankly, we don't know! A partial roll call of what we've done for others, however, gives you an inkling. For one company we designed containers and, working with machinery suppliers, made possible the first large-scale packaging of *dry drugs in glass.* For another, we designed the first completely practical glass vitamin package. For another we traced and banished losses from irregular production-line closure operations. For still another, we brought low-cost packaging simplification.

Your factory men will welcome O-I Packaging Research Engineers. They not only take kinks out of production lines, but also help smooth the flow of your product clear to consumer.

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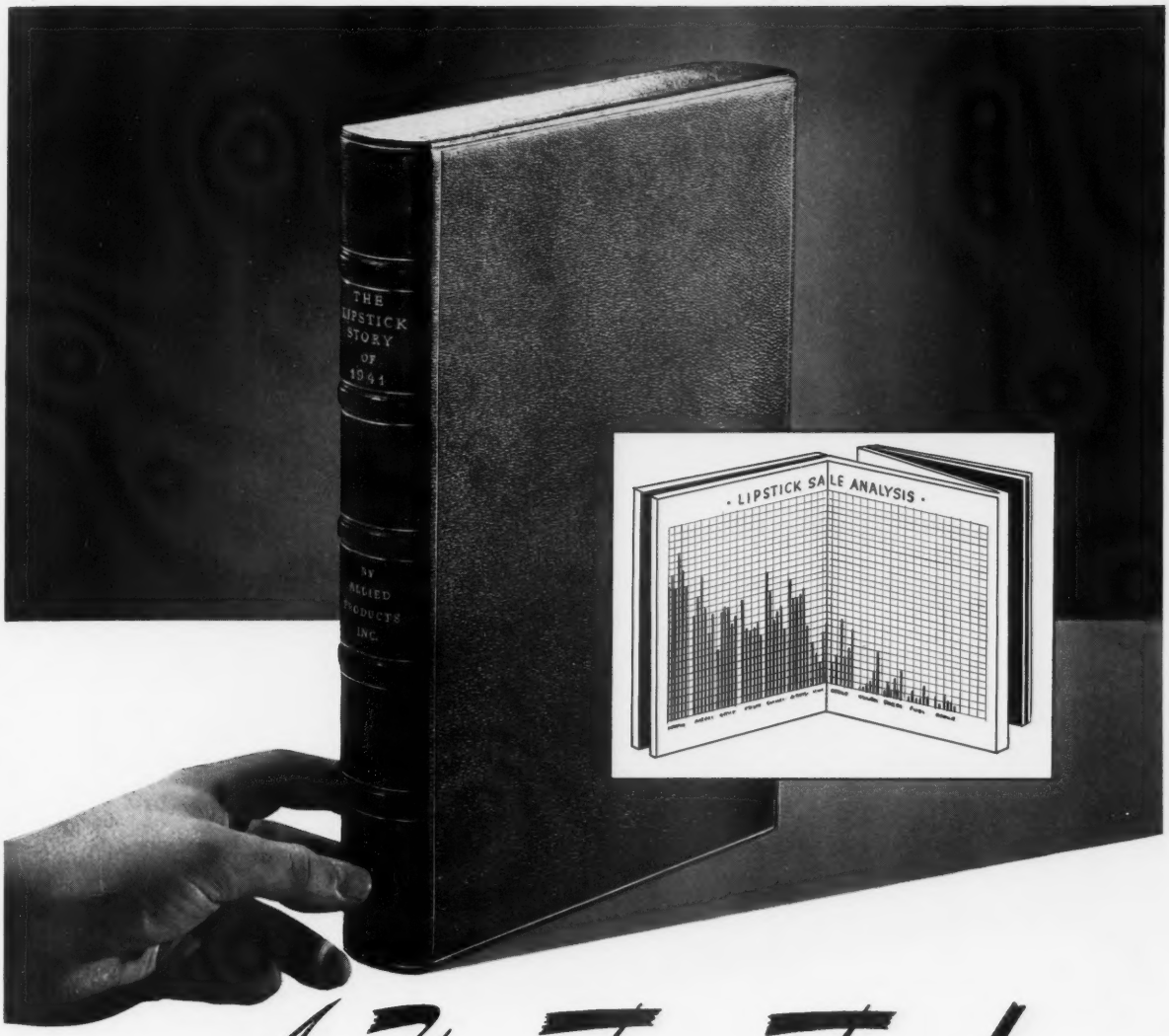
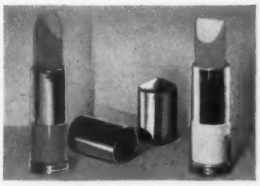


At Your Finger Tips!

What the dictionary is to the writer . . . what the navigation chart is to a pilot . . . consumer surveys are to cosmetic manufacturers. Properly analyzed and applied, these surveys direct his efforts toward keeping his line keyed to fashion . . . to demand . . . and PROFITS!

The APLI chart breaks down production of many millions of lipsticks in all shade groups popular over recent months into *twelve major classifications.* These production figures are an accurate summary of what Milady has preferred in lip color—and become the basic means by which to anticipate her future demands.

A presentation of this factual data to cosmetic company executives will be gladly arranged when an appointment is requested. Important informative material is also available on the subjects of preferred texture, yield and indelibility. Also obtainable, at no obligation, is the complete set of twelve composite lipstick shades prepared from each group of the twelve major lipstick classifications.



BE RIGHT WITH ALLIED . . . Allied manufacturing routine emphasizes rigid analysis by trained specialists before a single shade is released for consumption.

ALLIED PRODUCTS, Inc. 30 ROCKEFELLER PLAZA, N. Y. C.

MAKERS OF THE WORLD'S FINEST COSMETICS AND TOILETRIES • PRIVATE BRANDS EXCLUSIVELY

PLANT AND LABORATORIES: SUFFERN, NEW YORK

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KEEP YOUR SHADES IN TUNE WITH THE TIMES

Are your shades of Lipsticks, Rouges and Cream Rouges in tune with the times?

We are ready to harmonize them for you.

We also make quality—
COMPACTS, FACE POWDERS, CREAMS, TOILET WATERS, ETC.

ALL OXZYN products are checked by experienced chemists, to insure absolute compliance with the Pure Food, Drug and Cosmetic Act.

A NEW PUFF
for your Dusting Powder
Cheaper — Better — More Attractive
Samples of the New Mushroom Puff to match your Color Scheme on request.

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ONE PLEASANT AVENUE
CLIFTON

MANUFACTURING
Cosmetics of Quality
SINCE 1877

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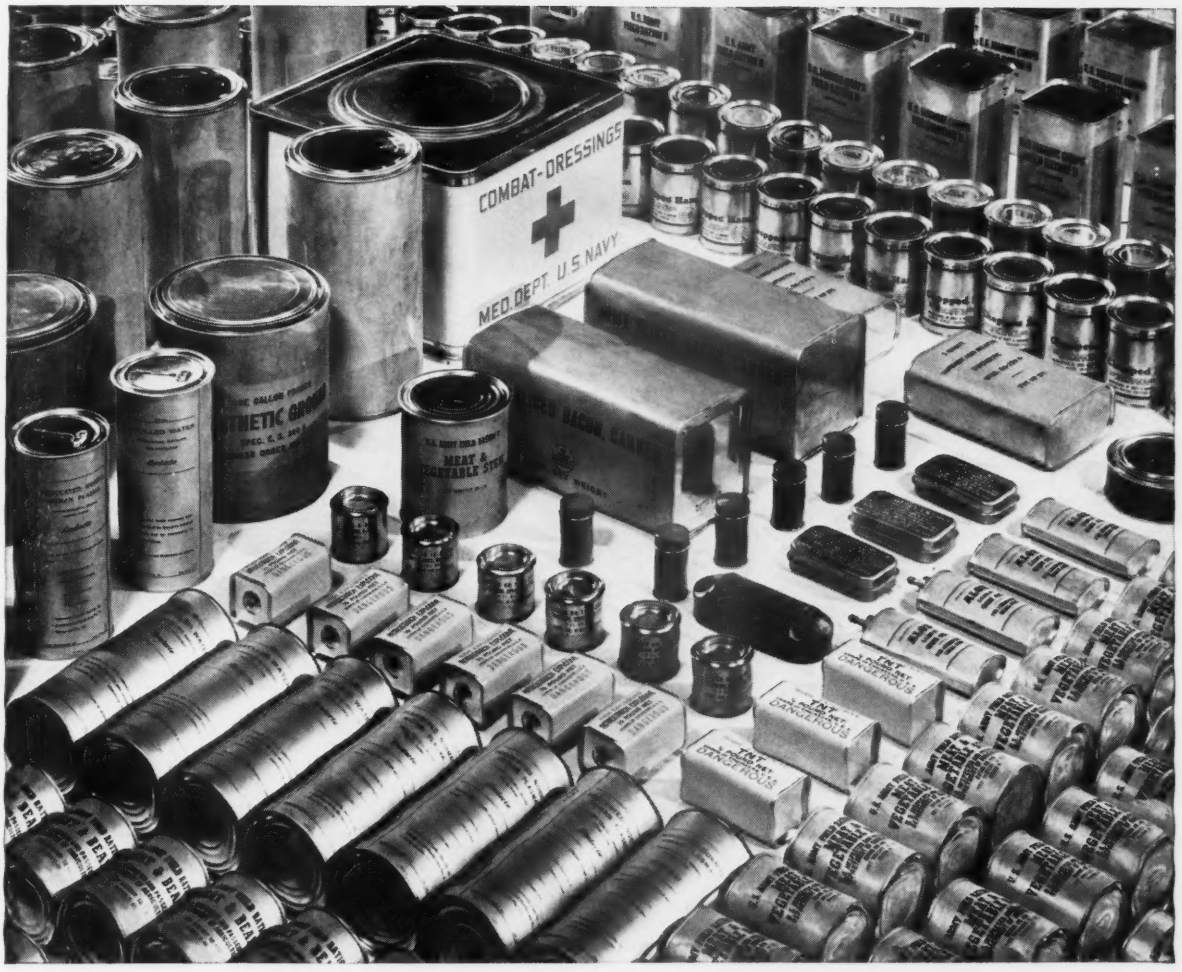

SOME "NON-SECRET" WEAPONS THE AXIS WOULD LIKE TO HAVE

Study the Labels on the cans and packages in the picture above.

On some of them, you'll notice "Army Sliced Bacon, Canned . . . U. S. Marine Corps Field Ration D . . . U. S. Army Meat and Vegetable Hash . . . TNT Dangerous, Corps of Engineers."

There's a container for dried human blood in the picture, too. For transfusions in the field. Another to house a delicate motor on anti-aircraft guns.

And while you'll be interested to know that these articles are some of the many defense items the containers for which are made by the can-making and packaging industries, their significance goes far beyond this simple fact.

For they are weapons. "Non-secret" weapons, if you will. And every country has them. *But the Axis would like to have ours.* Do you realize why?

The industrial resources that produced these "non-secret" weapons are the largest in the world. The Axis needs those resources.

It needs the men . . . the machinery . . . the skill . . . the research that make the quality and the quantity of these weapons possible. It needs the energy of the free, unregimented economy which produced these weapons.

We Americans can congratulate ourselves that the Axis hasn't these resources . . . that we—not the Axis—have built the greatest packaging and can-making industries in the world . . . that we are now using the sinews of these industries to resist aggression. American Can Company, 230 Park Avenue, New York, N. Y.

Sturge Standard
PRECIPITATED
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Specific grades to meet your requirements for
DENTIFRICES
FACE POWDER
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For over fifty years American chemists and drug and cosmetic manufacturers have learned by experience that they can depend on STURGE STANDARD PRECIPITATED CHALK for *Unfailing Uniformity, Unfailing Quality and Unfailing Deliveries.*
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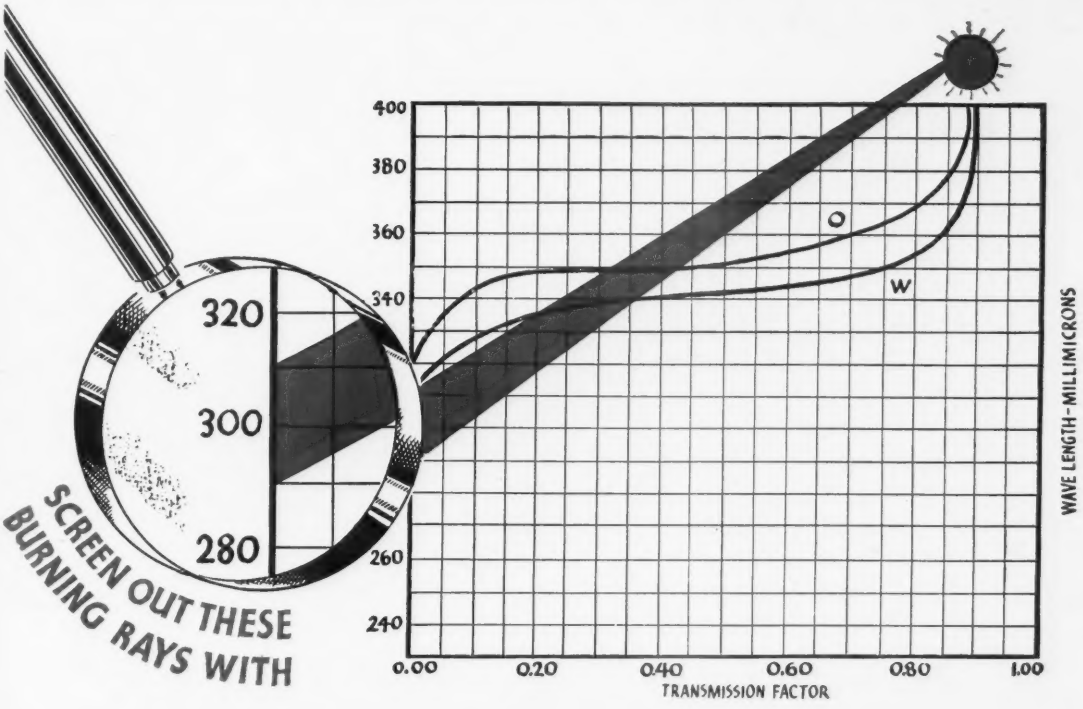
MAKE BETTER SUN-TAN PRODUCTS FOR LESS



SUNAROMES

...FELTON'S EFFECTIVE SUN SCREEN PERFUMES

Just consider the many advantages you can enjoy from a product that not only perfumes your sun-tan preparations most attractively, but which in itself makes them very effective screens against the burning rays of the sun. Then you'll understand why Felton's Sunaromes have been widely used in the manufacturing of so many successful sun-tan products.

Sunaromes are supplied in a number of delightful fragrances... and you'll be amazed to see how easy it is to make fine sun-tan preparations with them.

All you do is mix Sunaromes with the base you prefer . . . water gum, water alcohol, or even water alone. You can also use a liquid cream base, mineral oil, fatty oil and others. It's the Sunaromes that make them effective sun screens . . . and scent them so attractively. The protection is positive . . . and there is no problen of skin irritation.

FELTON Quality

Write NOW for Samples and a leaflet containing complete data, prices and interesting formulas.

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599 Johnson Ave., Brooklyn, N. Y.

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WE WILL SEE IT THROUGH

GIVAUDAN–
DELAWANNA, INC.
330 WEST 42nd STREET • NEW YORK, N. Y.

Our difficulties are pretty picayune compared to those of our friends "over there" – as these scenes from war-torn London indicate . . .

Sure, we're short of certain raw materials . . . have to do without others. Certainly, this has complicated production schedules, interrupted delivery promises. And it means a good deal of overtime on continual research for satisfactory substitute materials . . . but, all in all, we've been mighty fortunate . . .

We're in this thing now and we will see it through! *Let us all remember that no sacrifice, no contribution, can be too great if it hastens the day of Victory!*

In that spirit we are carrying on, putting first things first, confident we can do the job. And in that spirit, we will continue to do our best to meet your needs for technical assistance, service and materials within the necessary limitations of available supplies.

75 YEARS OF SERVICE TO CHEMICAL USERS

Congress, under a joint Resolution of July 27, 1866, provided that each of the states be furnished with a complete set of weights, running from 10 kilograms to 1 milligram . . . unvarying throughout the states.

Unvarying Standards

As unvarying as Government standards . . . are the standards which rule the manufacture of Mallinckrodt Chemicals. Potentiometer, centrifuge and flask—the most modern scientific equipment available, in the hands of capable technicians—certify the potency, purity, and uniformity of Mallinckrodt Chemicals for medicine, pharmacy, industry, laboratory and photography.

With the experience of 75 years of manufacture of fine chemicals as a guide . . . and a better knowledge of the requirements of each type of chemical user . . . Mallinckrodt Chemical Works stands ready and able to offer even superior service in the years to come. Research continues to be a fundamental Mallinckrodt policy. As in the past, our laboratory workers will continue to improve available chemicals and to add new, valuable products to the Mallinckrodt list of over 1,500 useful chemicals.

FINE CHEMICALS
Mallinckrodt
SINCE 1867

MALLINCKRODT CHEMICAL WORKS

Serving Chemical Users for Seventy-five Years

NEW YORK ST. LOUIS PHILADELPHIA
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KEEPING POSTED

Further Tin Saving

Further steps are being taken to conserve the stocks of tin in this country. The order issued April 1, allows the use of pure tin tubes for medicinal and pharmaceutical ointments compounded by pharmacists according to a prescription of a doctor, dentist or veterinarian. The order permits the use of a tube containing 7½ per cent. of tin (tin coated tube) for medicinal and pharmaceutical ointments not included in the pure tin classification, and also for ointments intended for use in the body orifices, as well as for tooth pastes and shaving creams.

The order defines three classes of products for which tubes may be used. All other uses of tubes are banned. Class I includes: "Medicinal and pharmaceutical ointments and other preparations extemporaneously compounded or dispensed in manufactured form by pharmacists or legally constituted prescriptions of physicians, dentists, or veterinarians; ointments and other preparations for ophthalmic use; solutions for hypodermic injection; sulfonamide ointment and blood plasma; diagnostic extracts (allergens); pile pipes." This class of products may still be packaged in 100 per cent. tin tubes without limit. Class II includes: "Medicinal and pharmaceutical ointments not included in Class I, and preparations intended for introduction into body orifices (nasal, vaginal, rectal, surgical jelly, etc.), not included in Class I." Seven and one-half per cent. tin coated tubes may be used for these products without limit. Class III includes only dental cleansing preparations and shaving preparations, and for these products seven and one-half per cent. tin coated tubes can be used to package the same quantity of these preparations (measured by volumetric weight) during the calendar year 1940. Other uses of tubes are termed "non-essential" and are ordered to be stopped.

Further, manufacturers and users of tubes are ordered to cooperate in reducing the thickness of the tin coating on tubes to the minimum thickness sufficient for the product to be packed. Also, all tube manufacturers and users are ordered to concentrate upon the larger-size tubes to the greatest extent that may be feasible and practical. Substitution of containers made of other materials must be substituted as far as possible.

Use of tin-coated tubes is not to be allowed at all to those who did not use them for their products prior to January 1, 1941.

This order is expected to reduce to about 2,000,000 gross the number of tubes required during 1942, as against an unrestricted demand of approximately 2,500,000 gross. On an unrestricted basis, 5,000 tons of tin would be required, compared with a consumption of 578 tons under the terms of the order. Therefore, the saving in tin is estimated at about 4,400 tons per year. The saving results chiefly from the reduction in the number of 100 per cent. tin tubes and the substitution of tubes containing only 7½ per cent. of tin.

Tin Salvage Changed

The tin order also contained the requirement that a buyer of a tube of tooth paste or shaving cream should present an empty collapsible tube before the retailer sold the new package to him. This is an attempt to force people to give up their old tubes and not keep them or throw them away. Evidently, the WPB is not satisfied with the voluntary drive that has been under way for over a month under the direction of the Tin Salvage Institute,—which was formed by the Collapsible Tube Manufacturers Association.

While the proposed method might bring out a lot of tubes that otherwise would not be turned in and might produce more tubes in the long run, it will probably slow up the salvage from one point of view in that people who might otherwise donate their old tubes will now keep them until they need them for purchasing new supplies.

Glycerine Restriction

Action has been taken by the WPB to divert more of the available glycerine to the war effort. The order, which is effective May 1, orders the use of glycerine for anti-freeze completely stopped, and restricts to seventy per cent. of the calendar 1940 the amount of glycerine that can be used by any other consumers with the exception of defense orders and manufacturing or processing of health supplies as defined in order P-29 as amended from time to time.

Medical Care Exemption

It is extremely interesting to note that the Treasury Department is suggesting to Congress that deductions for medical care be allowed in computing income taxes. The idea of the Treasury Department is that taxpayers be allowed to deduct up to five per cent. of their net incomes, with an upper limit for such deductions set at $2,500. Such a type of deduction has been advocated for close to as many years as the income tax has been in existence. It is satisfying to see that this proper type of deduction is likely to be allowed at long last.

Quinine Stocks Frozen

Quinine stocks in this country were frozen under WPB order, M-131, issued April 4. This order affects all who have to do with quinine and cinchona bark except the ultimate consumer. Persons having in their possession fifty pounds or more of cinchona bark or fifty ounces or more quinine are ordered to report their holdings to the WPB on form PD-401 which becomes available about the middle of this month. The terms of the order permit sale and delivery of quinine as an antimalarial agent or as an ingredient of quinine and urea-hydrochloride. The restrictions do not apply to any stock of quinine in combination with other medicinal agents. The estimated military requirements of quinine for the balance of this year are in excess of the anticipated production from Central and South American barks, and therefore a stockpile of existing supplies will be built. While there are goodly supplies of quinine in the hands of the armed forces at the present time, this move is being taken to be certain that reserve supplies will not be unnecessarily dissipated.

Morphine Substitute?

Now under attack on their ownership of the patent on Atabrine—a product for the treatment of malaria, the Winthrop Chemical Company now announces the results of clinical experience with a drug called Dermerol, and described as a substitute for morphine. The product appears to be derived from Atropine, the alkaloid obtained from belladonna. The report says that while atropine is slightly sedative, in large doses it depresses the heart to a dangerous degree. The synthetic product, Dermerol gets rid of this heart depressing effect and takes on the pain relief of morphine.

From the data given, the product appears to be a sedative or hypnotic rather than a narcotic. Furthermore, it cannot be administered intravenously, but only orally and parenterally. It is stated that the product is not as effective as morphine, but is less toxic and therefore can be administered in large doses. The product is said not to be habit-forming, and produces an analgesic effect which lasts four to five hours.

According to manufacturers of narcotics the use of morphine has been steadily declining in this country for some years past. This decline in the use of morphine is accompanied by a consistent rise in the use of codiene, the opium derivative which is practically non-habit-forming.

Tin for Caps Cut

A further saving of approximately 1,600 tons of tin is forecast as the result of an order issued April 2 which eliminates completely the use of tinplate and terneplate for many closures used on glass containers. Four weeks from the date of the order, manufacture of tinplate or terneplate crown caps for soft drinks and carbonated beverages is prohibited. These materials are banned at the same time from two-piece home canning closures. Cover caps which fit over a paraffin seal may not be made of tinplate or terneplate after four weeks. And closures of the same materials are banned at the same time for coffee, tea, dry spices (except those containing salt, onion salt, or garlic salt), candy, peanut butter, linoleum cement, radiator cement, fly spray, lighter fluids, oleic acids, dry cleaners, graphite, and paste-type waxes. Furthermore, not only tinplate and terneplate, but also blackplate cannot be used for closures on dog foods packed in glass. Under this order, all closures on the products mentioned, with the exception of dog food, will be forced to turn to blackplate. Under this order it is estimated that eventually the use of tin in closures may be cut to as little as 500 or 600 tons per year, against a normal consumption of 3,100 tons.

Ten-Cent Sizes

The curtailment of tin tubes, the restrictions upon metal closures, and other orders already issued as well as anticipated appear to forecast sharp curtailment, if not almost complete elimination of ten-cent sizes. Already some manufacturers have stopped production of these sizes.

After all, the ten-cent size market was originally viewed by manufacturers as a sampling proposition. It will be recalled that in the beginning manufacturers gave more for the price in these sizes than they gave in

the larger sizes. Later these evils were corrected and ten-cent sizes became, to some extent, a straight merchandising affair. But the present time is not one that needs sampling to any marked degree, and these sizes can be abandoned for the present emergency without too much loss being involved.

Menthol from Peppermint?

The complete elimination of imports of menthol from the two producing countries, Japan and China, is causing those to whom this material is essential to look for other sources. The one source that is apparent is American peppermint oil. This oil contains fifty per cent. of menthol against eighty per cent. in the oil from which menthol is extracted in Japan and China. However, the Vick Chemical Company, large users of menthol, has placed an educational order with an essential oil refiner to have some menthol extracted from American peppermint.

If the experiment is successful from the point of view of cost and other considerations, then additional peppermint oil will have to be produced in this country. It appears that the peppermint harvested last year for the production of oil would just be about sufficient to supply the menthol needs of this country. Therefore, before menthol could be replaced by extraction from American peppermint oil it would be necessary for the amount of peppermint grown in this country to be more than doubled. The annual production of peppermint oil in this country in the states of Michigan, Indiana, Washington, and Oregon runs between 700,000 and 1,000,000 pounds. It is claimed that, even though there is fifty per cent. of menthol in this oil, about three pounds of oil are needed to produce one pound of menthol. Therefore, to supply the 350,000 to 400,000 pounds of menthol consumed in this country annually, an additional 1,000,000 pounds of peppermint oil would be needed. So the crop of peppermint in this country would have to be doubled at least to assure this country of independence in menthol.

Peppermint is being planted about now, and it will be harvested in late August and September.

Tin for Four Years

While all possible steps are being taken to curtail the use of tin for non-essential purposes, the outlook for tin for military needs is bright. A tin stockpile of 150,000 tons, and prospective deliveries from the remaining producing areas in the hands of the United Nations, assures this country and her allies of sufficient tin for all military and essential needs for at least four years. Consumption by the United Nations is estimated at 125,000 tons a year, and the areas still open supply about 90,000 tons a year. The difference of 35,000 tons a year will have to come out of the stockpile. New supplies should come out of Bolivia with about 45,000 tons to be shipped to this country; 15,000 tons from Nigeria; 19,000 tons from Belgian Congo; 2,500 tons in the United Kingdom; 3,500 tons in Australia; and other British Empire sources will give 5,000 tons. This country should consume about 75,000 tons a year for the next four years, which compares with 96,000 tons in 1941 and 74,114 in 1940. The United Kingdom will consume about 25,000 tons, Russia about 15,000 tons, other British Empire nations about 10,000 tons. These estimates are given by the Producers' Association at London in their monthly publication, "Tin."

The Alcohol Situation

The alcohol situation remains confused with all sorts of plans being put forward to increase production. One thing is certain and that is that there will be no liquor produced in this country for the emergency. All the liquor distilleries have been turned over to production of alcohol for the war effort. This means that no more gin, domestic rum, or blended whiskey beyond the stocks in retail stores, wholesalers warehouses, and distillers plants will be available until the emergency is past. The stocks of straight rye and bourbon whiskies which are available are normally sufficient for five years. Both with gin, rum, and blends gone, these stocks will find their way into consumption at a much more rapid rate.

But with this one point settled, there is heated dispute as to where the rest will come from. Those interested in farm products want the alcohol to come from grain, one promoter of this interest claiming that a process is available that will produce alcohol at a cost of twenty cents a gallon, against fifty cents a gallon from molasses. He further claims that a polishing agent formerly imported from the East Indies can be substituted by a product obtained from grain after which alcohol could be extracted at a cost of ten cents per gallon. This promoter claims that petroleum gases should not be used to produce alcohol for the reason that these gases can be used for other things of vital concern in the war effort.

In the meantime, such plants as are in production are going ahead as rapidly in the production of alcohol, and new synthetic plants are being speeded to completion to further augment the supply. Recently Dr. William J. Hale stated this country needed an annual production of 1,000,000,000 gallons of alcohol, 500,000,000 of which will be needed for production of synthetic rubber. The highest estimates prior to this was 400,000,000 proof gallons, or 200,000,000 wine gallons. It was not stated whether Dr. Hale's estimate was proof or wine gallons.

Cosmetic Curtailment

While the cosmetic branch of this industry has been curtailed in some respects, much more drastic curtailment might lie ahead, according to recent information from the WPB. Thus far the curtailment in the manufacture of cosmetics has been merely in the way of a few raw materials for the manufacture of cosmetics and their containers. Alcohol and glycerine are the outstanding raw materials that have been curtailed, alcohol consumption being cut thirty per cent. But it has been possible to change formulas and substitute to some extent for these lost raw materials. Even the loss of brass and other metals in cosmetic containers is being substituted for wood after the attempt to obtain sufficient plastics failed as a substitute. But now the first drastic step is about to be taken.

The WPB is said to have made up its mind that certain cosmetics are more essential than others. The ones which they consider essential are lipsticks, rouge, face powder, and cleansing cream. The ones that the WPB consider non-essential or luxury cosmetics are perfumes of the luxury types, hand lotions, and toilet waters. The restrictions and standardization orders placed upon the non-essential products will be more drastic than those placed upon the products considered essential.

The WPB has called upon the cosmetic industry to give specific information by April 15 as to what steps can be taken to standardize lipsticks, rouges, face powders, and cleansing creams, and thus simplify the production of these products, and curtail or completely eliminate hand lotions, toilet waters, and luxury type perfumes. The many varieties and shades of these essential cosmetics are to be greatly lessened for the period of the emergency. Out of thirty varieties and shades of face powder which the WPB says are now on the market, not more than a half dozen are necessary. It is the idea of the WPB that these six shades could be completely standardized. The same applies to lipsticks, rouges, and cleansing creams, in the opinion of the WPB. Hand lotions, use large amounts of alcohol and glycerine,—two essential war materials,—so this type of product will be curtailed severely. Toilet waters use large amounts of alcohol, and perfumes also use alcohol, so these two types of products are also in for sharp curtailment.

Tinned containers for cosmetics are also part of the curtailment picture. Thus far collapsible tubes containing any tin are eliminated, but lead tubes coated with lacquer or other material are allowed. Tin cans for powders and other cosmetics have been eliminated, but the manufacturers were told that they could use iron blackplate. Now the blackplate is becoming scarce. Therefore the WPB is seeking to solve this container problem by standardization of packages and containers to the end that the minimum amount of metal will be used.

There is still a further move contemplated by the WPB and that is the withholding of new scientific equipment from cosmetic laboratories. This is for the reason that a sample survey of cosmetic plants indicates that they will provide little equipment of value to the war effort.

Where the WPB made its investigation of the cosmetic industry is not known, but the fact of the matter is that a number of cosmetic manufacturers are now engaged in filling orders for materials essential to the war effort. Some of these are simple as tannic acid jelly, and many of them are quite removed from the ordinary products of this industry. However, at the moment we do not feel that it is wise to list these. The point that we do make is that cosmetic plants, as well as their equipment and their labor, can be effectively utilized in aiding the war effort if cosmetics are to be sharply curtailed.

Shifting Conventions

With White Sulphur Springs still loaded down with the German and Italian diplomats, the conventions that usually go to this resort for their meetings are finding other places or eliminating their meetings ordinarily held at this time of the year. The American Drug Manufacturers Association has transferred its annual meeting to French Lick Springs on the same dates as originally planned,—May 4 to 7. The National Association of Chain Drug Stores, which had planned its annual spring meeting for White Sulphur on May 21 to 23, has decided to eliminate this meeting altogether, leaving it up to the board of directors to decide whether or not a meeting will be held in the fall. The chain store association entertained the idea of transferring its meeting to French Lick, but in polling its members it found out that due to the many uncertainties existing today to which no definite answer can be given, members hesitate to leave their offices for any length of time because of the consequent confusion that might arise in their absence.

The American Pharmaceutical Manufacturers is fortunate in having its meeting planned for Virginia Hot Springs in June. The Japanese diplomats have been removed from the Homestead at Hot Springs to other places and this hotel is now back to normal. Therefore, no change in this meeting has to be made.

Cap Enamel Restricted

Enameling of container metal caps is now under restriction. WPB order M-116 limits the use of enamel coatings for glass container tops in an effort to conserve this country's stocks of such scarce items as tung

oil, resins, and solvents. The order prohibits the use of enamel coatings on tinplate or ternplate glass container tops, with certain exceptions. Also ordered is reduction of the weight of the interior and exterior enamel coating on all closures for glass containers to not more than nine-tenths of the weight used in 1940, wherever practicable.

Manufacturers will still be allowed to coat container closures when required to protect lithographed printing if other means of designation on the container closure are impracticable, or where the closures are heat-sterilized for use with food products for human consumption.

Through this order, the WPB expects to save approximately 1,500,000 pounds of scarce protective coating raw materials such as tung oil, phthalic anhydride resins, phenolic resins, and certain solvents.

A Club to Swing

The OPA now has a club to hold over violators of orders issued by it. Direct prosecution and a maximum penalty of $10,000 fine and a year in jail for wilful violation of priority orders of the WPB or rationing orders or regulations of the OPA, are provided under the provisions of the Second War Powers Act, 1942, which was signed by President Roosevelt on March 28.

No longer can the "black market" tactics in chemicals and raw materials be carried on without real danger to those engaged in this sort of work. And the sooner that the government uses this law to crack down on those who defy the authority of those charged with successful direction of production for the war effort the better it will be for all concerned.

And the law makes those who connive to get more than their fair share of rationed goods as equally guilty as those who traffic illicitly in rationed goods for profit.

It is time that real attention was given to the apprehension and successful prosecution of those engaged in this nefarious practice. Those who would seek not only to hinder the war effort, but also to profit by their evil doings should be promptly dealt with to the limit.

Drug Makers' Plan

The plan under which drug manufacturers are eventually to operate has not as yet been put into effect. At the present time the Health Supplies Plan is fading out and the Production Requirements Plan is coming into view. The order P-29 which is still in effect, applies to chemical manufacturers who make products for medicinal use. Therefore, drug manufacturers are not able to make application for their needs under order P-29. A general procedure is being set up to handle the drug manufacturing industry under the Production Requirements Plan. Under this plan it will be necessary to prepare slightly different application and rating forms for use by the drug manufacturers.

Manufacturers are requested not to attempt to apply for ratings under the Production Requirements Plan until such time as notification has been given that the plan is in effect. The plan must automatically be put into effect on June 30, but it seems likely that it will become effective well in advance of that date.

Government Business

All manufacturers are now, or shortly will be seeking government business to take up the slack caused by curtailment of their production caused by the war effort. In order to get this business many people travel to Washington and go from office to office in an attempt to get someone to welcome them with open arms. This is not the way the thing is done unless one is a manufacturer of something unique that just happens to fit into the plans for conducting the war.

The better way is to write to the various government agencies who do the buying and request that your name be added to the list of those receiving invitations to bid on the requirements of such articles as you make. It is well to send a catalog, or list the products that you manufacture. Also state your capacity per month. In most cases the agencies will forward a questionnaire which is simple to fill out.

The agencies with which manufacturers should be listed are:

The War Department either at the U. S. Army Supply Depot, Brooklyn, N. Y., or St. Louis, Mo.

The Navy Department, which includes the Marine Corps, is reached by addressing the Chief of the Bureau of Medicines and Surgery, Navy Department, Washington, D. C.

The Department of the Interior is reached by addressing E. E. Eisenhart, Acting Purchasing Officer, Department of the Interior, Washington, D. C.

The United States Public Health Service is reached through the Surgeon-General, U. S. Public Health Service, Washington, D. C.

The Procurement Division of the Treasury Department is one of the large government buyers and can be reached through Ralph S. Gibson, Purchasing Officer, Treasury Department, Procurement Division, Room 793-A, Washington, D. C.

The Veterans Administration is reached through A. J. Harrison, Chief, Procurement Division, Veterans' Administration, Washington, D. C.

THE NEW COSMETIC MARKET

Although up to this moment there are but few deviations from time-tested selling as usual policies, there are many things stirring beneath the surface which indicate that new merchandising plans are being devised and tested for exploiting the wartime cosmetic market. Although each day's newspaper makes it more clearly evident what the size, shape and characteristics of this market will be, it is only when its various components are grouped together that its full potentialities and the need for immediate planning are evident.

In the first place, it is confidently predicted that the national income will reach a record-shattering total of 113 billion dollars this year, about 19 billion over 1941 and 25 billion over 1929. According to Department of Commerce figures, war expenditures will account for an estimated $47,200,000,000 of the national income, leaving only about $66,000,000,000 of production and services for civilian consumption. Unprecedented high taxes, increased pressure upon war savings, and increasingly drastic curtailment of civilian goods are all part of this same market picture to say nothing of almost inevitable increases in the price of civilian goods, estimated by the Department of Commerce at about 12 per cent. generally.

Of tremendous importance to the cosmetic industry is the fact that although only about 500,000 women are now engaged in war work, they are being engaged at a rate which indicates that some 3,500,000 will be engaged in war industry by the end of this year. Another source asserts that six million women can be recruited for war services during this year. Not all of these, of course, represent new workers on payrolls for the first time, for a substantial percentage of either figure would represent those transferring from other industries due to the curtailment of civilian goods production, or those drawn from other occupations by the steady work and good wages in war industries. But most authorities agree that from two to three million women will soon be engaged in industry and on a payroll for the first time. Great Britain, with a much smaller population, already has between five and six million women engaged in war industries.

In addition to places in industry, it is by this time fairly evident that women will be taking places on the farms and acting as auxiliary services to the armed forces. A bill to create a voluntary Women's Army Auxiliary Force of 150,000 has already passed the House. It has Army backing and will undoubtedly become law. If Britain's experience is any guide, a Navy auxiliary and Air auxiliary will follow. In addition, as more and more farm workers enter the armed forces, women will be entering this field as well. Already the Oregon officers of the U. S. Employment Service have enlisted a reservoir of 200,000 women to work on farms if and when the shortage of men becomes serious.

Just what does all this mean in terms of cosmetic merchandising? It means that the lower and middle income groups, except for those of their members in the armed services, will have larger incomes than ever before. It means that a large percentage of those with ready money will be women and that many of them will be earning money (and spending it) for the first time. It means that with no radios, refrigerators, automobiles, washing machines, etc., etc., to buy, their ready cash will go to other things which are available including cosmetics—despite taxes, war savings and higher prices.

It also means that the merchandising emphasis on cosmetics may well return once more to the therapeutic approach. Although therapy is a word not to be used in the same breath as cosmetics so far as organized medicine or the Federal Trade Commission is concerned, still no word so well describes the function which cosmetics will be called upon to perform in the light of woman's new place in total war.

In the factory for example, she will no longer be getting whatever amounts of fresh air and sunshine she was accustomed to before the war. When natural fatigue due to the new and unusual occupation is added to this, it is at once obvious that the skin and the hair

are certain to be among the first casualties unless special efforts are made. This is to ignore completely the very real hazard of various occupational skin diseases resulting from dust particles, the presence of acids and other chemicals, or any other of the minor industrial hazards which may result in skin irritation or even infection.

Some investigations along these lines already reported from England indicate that in a great many war industries, for example, the operators are quite likely to find their skin affected by the presence of hard insoluble particles of dust in the air. The most obvious reason for this condition would be a case in which the dust consisted of such minute particles of metal as might well be distributed in the air when metals are polished or ground. It is easy to see how such fine particles might exert a harmful effect in cases where they adhere to the skin and then are subsequently worked into the skin by friction. In certain other plants, a soft, fine dust might well be the source of danger to the skin. This is the type of dust with which city dwellers are already familiar and with which cosmetic sales and advertising stories have long coped.

The new conditions affecting women in war work appear to offer the cosmetic industry an opportunity to make a substantial and practical place for itself in the war. Its products have been designed to cleanse, protect, and stimulate the skin and hair and the wartime merchandising approach should emphasize what each product can do to prevent and repair the ravages caused by unusual work under unusual conditions. This is an apt moment to remember too that the last word has yet to be said on the subject of vitamin and hormone creams. Large-scale experiments in the feeding of vitamins to war workers are now being carried on in certain war industries, and with the severe curtailment of hours of fresh air and sunshine for women in war industries, creams of this type may have much to recommend them, despite the expressed disapproval of the Federal Trade Commission. Aside from the treatment products, the bath preparations and colognes might well be promoted for their refreshing and relaxing influence in cases of mental and physical exhaustion which these new workers will frequently experience, while the opportunity for hand and foot preparations is also obvious.

The woman who enters any of the auxiliary services to the armed forces has also many of these same conditions to face and she, too, is part of this new market. Those in this category, in addition, may often have the problem of too much exposure under all types of weather conditions, thus offering opportunity for both preventive and remedial cosmetics for sunburn and windburn. This also applies to the woman who decides that her duty is to help on the farm for she is certain to encounter these as well as all types of hazards to hands unused to and untrained in such duties.

The emphasis upon cosmetics for morale was and is very well, for there is no question that a woman feels better if she is sure she looks her best. And there is equally no question concerning the male viewpoint on the subject of woman's appearance. But now, in addition to this morale approach which too many women interpret as an appeal to those who have nothing to do but sit around and look pretty for the returning warrior, cosmetic merchandising may well be directed towards the woman who is working in the factory, in the services or on the farm. It should be the duty of the cosmetic industry to make certain that these workers for victory shall not suffer in the appearance of their skin and hair and hands because they are workers.

This is the new cosmetic market—women war workers.—There is not a single cosmetic product which cannot do its share to lift any woman's spirits out of the slough of mental and physical exhaustion which she is bound to encounter as she engages in her war job. Many of these cosmetics, properly used, will actually prevent the ravages to appearance which these jobs might otherwise entail. The alert cosmetic sales-manager will direct his packaging, his advertising, his pricing and his promotion towards this market.

ANTI-MALARIALS

PATENTS originating in Germany and operated by firms in this country on an exchange or royalty basis are almost certain to be thrown open to general use by the Government. It seems that at the present time certain circumstances are necessary to effect this release of patent rights, but a law might be effected that will make these circumstances unnecessary, or circumstances might be revealed that will apply to other companies which have not already been ordered to effect such patent release.

The Standard Oil Company of New Jersey has agreed to surrender the patent rights which it has held upon German patents for synthetic rubber, fuels and other chemical processes. This is due to the fact that they were found to be acting in restraint of trade in their control of these patents. Now anyone is free to use the German processes for production of synthetic rubber.

The heat is on Sterling Products Company to release its patent rights to the anti-malarial, Atabrine. Atabrine is made by the Sterling subsidiary, Winthrop Chemical Company. Winthrop Chemical Company is fifty per cent. owned by General Aniline & Film Corporation. Ninety seven per cent. of the stock of General Aniline & Film Corporation was owned by enemy aliens, but ownership of this stock has been transferred to the Secretary of the Treasury of the United States.

With Java now out of the picture, our main source of quinine is gone. Developments are under way to obtain cinchona bark from Central and South America for the production of quinine, but this will take time. However, there are very heavy supplies of quinine in this country both in the hands of the government and in the hands of manufacturers, consumers, and wholesalers. Even with Java completely cut off, this country is a very long way from any shortage of quinine.

Apparently to forestall any seizure of their patent rights, Winthrop has stepped up their production of Atabrine tablets from a normal rate of 5,000,000 tablets per year to a present rate of 200,000,000 tablets a year. And by the end of this year,—if present plans are carried out—this high rate of production will be doubled and Atabrine tablets will be produced at the rate of 400,000,000 per year. Since Atabrine tablets for the treatment of adults contain 1½ grains of Atabrine, this many tablets would contain 1,371,424 ounces of Atabrine. A statement made by James J. Hill, Jr., president of Sterling Products, in the financial report of the company, claims that where a ton of quinine is sufficient for treatment of from 30,000 to 100,000 cases of malaria, one ton of Atabrine is sufficient for treatment of 600,000 cases. Therefore, as regards comparative weights of the two drugs, Atabrine is at least six times as effective as quinine. This means that the 1,371,424 ounces of Atabrine planned as the yearly production of Winthrop is equivalent to 8,228,544 ounces of quinine, or slightly more than the normal consumption of quinine in this country for a two-year period.

However, the rub comes in the fact that Atabrine is used only as a treatment or cure for malaria, whereas quinine possesses the invaluable additional merit of being a prophylactic against malaria. Therefore, in the case of the armed forces especially, quinine is much preferred to Atabrine. In the case of an army, it is of questionable value to have a treatment for malaria after the soldiers are sick and in the hospital. It is of real value, however, to be able to feed them quinine and thus prevent them from having malaria at all. It can be seen from this comparison, that not only is Atabrine not a "synthetic quinine" as it has been termed, but neither is it a substitute in the full sense.

The government seems determined to take this patent away from Winthrop and release the process for manufacture of the product for general use. However, Assistant Attorney General Thurman Arnold claims that he can do nothing about it, stating:

"I can handle German patents under the Sherman Act if there is any pool in them, but not in a single patent as in this case. If other agencies do not seize them, I cannot do anything."

However, Leo Crowley, Alien Property Custodian, has the following to say:

(*Continued on page 387*)

POISON IVY

By M. A. LESSER

THERE is no certain, sure remedy for poison ivy. Ever since 1609, when Captain John Smith described the skin condition produced by poison ivy,[3,4] literally hundreds of remedies and relief measures have been suggested and used. Many of those employed prior to 1923 were described in McNair's[14] book on the subject, and a large proportion of the preparations advocated since then were concisely summarized by Burlage[1] in 1940.

Treatment of poison ivy dermatitis resolves itself into four basic steps: (a) Removal of the poison, (b) antidoting (e.g. precipitation oxidation, or neutralization) of the toxin, (c) application of protectants, and, (d) symptomatic treatment to relieve the itching and other unpleasant sensations.[15]

Perhaps the most important step is a thorough washing with soap and water. Any good grade of soap may be used, the important thing being good lather—it is the suds and not the water that removes the oily sap from the skin. Brushes or wash cloths may force the irritant into the skin. Washing should be repeated five or six times, to assure a complete job.[11] Very often, merely washing the exposed surface with soap will prevent the dermatitis, provided this is done before the poison has had time to penetrate into the skin. This obviously suggests the use of extremely efficient synthetic detergents, avoiding the use of those likely to be irritating to the sensitive skin.

Rinsing with 50% alcohol is often suggested following the washing.[15]

Sometimes organic solvents are used to remove the toxic substance. For example, in the discussion following Shelmire's[8] paper, Spangler said that the application of ordinary gasoline cleared up the condition. However, it did not clear up the secondary dermatitis, which healed in due course of time.

After washing, the use of antidotal substances further to inactivate the toxic principle is advocated. The most effective of these are solutions of ferric chloride, to precipitate the responsible agent. This is dispensed as a diluted tincture, as an aqueous solution, or in a glycerine-water mixture.[2] The five per cent. aqueous solution is often used, but a 3 to 5 per cent. solution in equal parts of glycerine and water is generally recommended.[6] Staining is the chief objection to ferric lotions, and persistent pigmentation of the skin may result from their use.[16]

A saturated alcoholic solution of lead acetate has also been suggested.[4] It works very much the same as ferric chloride, but one cannot overlook the possibility of lead poisoning when used on lesions.[1] Concentrated aluminum acetate solutions are non-toxic and non-staining and might be useful as precipitants.

The oxidizing action of potassium permanganate, in 1 to 4 per cent. solutions, is often used to eliminate Rhus toxins, but this, too, has staining proclivities. Hydrogen peroxide has also been suggested. In this connection, it is most pertinent that Gisvold,[17] in a series of comparisons of agents used in the treatment of ivy poisoning, found that, "The only successful method studied of rendering the active phenols inactive, involved their oxidation with alkaline peroxide."

The reducing action of sodium thiosulfate has also been brought into use as an antidotal agent against poison ivy. It is used as a 10 per cent. solution.[15]

Calamine lotion has been advocated as a protectant for the affected areas, but since it forms dried crusts which are best removed with oil,[15] it has certain disadvantages. Powders, however, are quite valuable as protectives and are easy and convenient to use, absorb moisture and favor evaporation in the moist stages. Goodman[18] recommends magnesium carbonate, starch, talc, and kieselguhr. Zinc stearate is also quite beneficial. A simple powder for dusting on dry or wet lesions may be made from:

Boric acid	8.0 parts
Zinc oxide	40.0 "
Talcum, to make	120.0 "

Another, a highly antipruritic powder, from the same source,[19] consists of:

Menthol	2.5 parts
Boric acid	60.0 "
Talcum, to make	120.0 "

In 1930, Lamson[20] studied the effectiveness of benzyol peroxide as a dusting powder and found that it soothes the itching, reduces the action of the toxic principle, and absorbs the serum, thus arresting the spread of the dermatitis.

Much more recently Amberg and Brunsting[21] reported that when powdered benzoyl persulfide was applied in cases of poison ivy dermatitis, the itching was intensified for a few minutes and then ceased entirely and did not return for a period of four to six hours, permitting normal sleep or work. The powdered chemical proved effective in instances where lotions and wet dressings had been ineffective.

One of the most effective relief measures is the paraffin-film treatment used in the therapy of burns.[4, 15] Melted surgical paraffin is applied to the affected areas to form a film and then rapidly dried to assure adhesion. The logic behind this is explained by Chavannes,[3] who points out that actually ivy poisoning is a chemical burn and its treatment should be similar to that used in treating other burns. This also helps to explain the recently introduced tannic acid treatment tor poison ivy.

Last year, Schwartz and Warren[22] of the U. S. Public Health Service, working with a small group of patients, applied a 10 per cent. aqueous solution of tannic acid to the inflammed area, after previous cleansing with alcohol. Itching and discomfort stopped within a day or two after the beginning of treatment. All symptoms disappeared at the end of a week. They warn that the treatment should be limited to the medical profession, because this treatment might do more harm than good if used on some skin inflammations not caused by poison ivy.

Although the use of ointments are contraindicated until the later stages of the dermatitis, since oils dissolve the toxin and favor the spread of dermatitis,[4, 15] there appears to be an exception to this general rule in the sulfathiazole ointment of Keeney and his associates.[23] In their report they state that thirty-five patients with acute vesicular poison ivy dermatitis were treated with this ointment and the lesions healed in each case without infection. Recently Keeney[24] improved the formula for this ointment so that it now consists of:

Sulfathiazole	5 per cent.
Absorption base	25 " "
Cold cream	70 " "

It is believed that this ointment base is more satisfactory than the base formerly employed; prepared with hydrous wool fat and vanishing cream.

Wet compresses and lotions, such as calamine with phenol, are of value in the relieving of itching and tension of the skin, and in reducing inflammation. A saturated solution of magnesium sulfate makes an effective evaporating lotion. Solutions containing sodium thiosulfate, such as the following,[15] are also frequently employed to give relief:

Sodium thiosulfate	8.0 Gm.
Glycerine	8.0 cc.
Zinc oxide	12.0 "
Water, to make	250.0 "

This is to be applied freely to the affected parts.

Goodman[18] has listed several poison ivy lotions, of which the soothing preparation, given below, is indicative:

Camphor	0.8 part
Menthol	1.0 "
Boric acid	2.0 parts
Sodium bicarbonate	2.0 "
Alcohol or isopropyl alcohol	24.0 "
Distilled water, to make	100.0 "

In 1938, Lazell[25] reported that a 10 per cent. aqueous sodium oleate dressing, had proved very effective for acute ivy poisoning. Ten per cent. of sodium oleate in lanolin provided a good ointment. Woodward[26] found that a covering of collodion gave quick relief, controlled spreading and hastened healing in cases of ivy poisoning of the hands and arms.

Several poison ivy extracts in various oily or alcoholic media have been used. Given intramuscularly in small, suitable doses, these injections often relieve the itching and shorten the acute stage of the affection. Sharlit and Newman,[27] for example, observed that 63 out of 74 patients with either severe or moderate ivy poisoning obtained relief within four days after receiving injections of a poison ivy extract.

Several such Rhus preparations have been accepted by the Council on Pharmacy and Chemistry of the A.M.A.[28] They are used for both the treatment and prophylaxis of the skin condition, the dosage schedule depending upon the use to which the product is applied.

Prevention of Rhus dermatitis is even more important than its treatment. Where exposure is known or suspected, a thorough washing of the exposed parts with a good lathering soap will often prevent the occurrence of the painful skin condition. Washing with alcohol, benzine, gasoline or the like may also prevent the dermatitis.

Protective coatings have frequently been advocated but most of them have decided disadvantages. A layer of strong soap on the skin is effective, but comes off very easily. Ferric chloride solutions, such as those given above, have often been suggested applications for the protection of exposed parts, but their staining tendencies mitigate against their use.

Quite recently workers of the U. S. Public Health Service[6] developed, tested and strongly recommended a protective cream containing a non-irritating oxidizing agent. This ointment, an alkaline vanishing cream containing 10 per cent. sodium perborate, should be well rubbed into the skin of the arms and face before exposure, leaving a deposit of powdered oxidant on the skin. The cream should be removed with soap and water after a few hours and another application made. These workers advise that this vanishing cream should be freshly prepared once in two weeks to avoid deterioration.

However, Shelmire[29] could not reconcile the findings of these investigators with his own observations, "Ten per cent. perborate ointment," he reported, "offers little protection against poison ivy dermatitis. That this partial protection is entirely mechanical and not due to detoxification of the oil by the perborate is indicated by the fact that the oleoresin of poison ivy deteriorates slowly, if at all, in the presence of liberal amounts of free oxygen and because of the fact that inert zinc oxide or calamine in vanishing cream affords equal protection against ivy dermatitis."

Prophylactic immunization to poison ivy by the oral administration or intramuscular injection of poison ivy extracts had led to variable results; some have been highly successful, others very disappointing. It is now realized that immunity acquired by such means, like natural immunity to the Rhus toxins, is a matter of great individual variations.[3]

Ever since 1918, when Strickler[30] demonstrated the feasibility of intramuscular injections of such extracts, many workers[31, 32, 33, 34, 35, 36, 37, 38, 39] have reported on this use of such preparations to produce acquired immunity to the poisons, which, if not always entirely successful, often did afford some measure of protection. With the use of these extracts, care must always be taken to prevent contact with the skin, and a rather special technic is required in making the injections.

Attempts at desensitization via oral administration is a much older procedure and the American Indian is said to have chewed ivy leaves for this reason. The lack of wisdom and the inefficiency of chewing leaves to acquire immunity has been clearly indicated in the recent report on this subject by Silvers.[40]

However, under controlled administration, oral desensitization has proved effective in some cases. Back in 1919, Schamberg,[41] recommended the use of a tincture of poison ivy in water in gradually increasing doses. In the schedule recommended, he found that such therapy prevented dermatitis in susceptible individuals, and was of benefit during an attack of the skin affection. Currently, Shelmire,[8] using ether-extracted ivy leaf oleoresins in corn oil, found that although oral administration did lower sensitivity, complete desensitization did not occur. Nontheless, he is of the opinion that such oral therapy is far superior to injection methods insofar as reduction in skin sensitivity to Rhus toxin is concerned.

Apparently many conflicting views and methods of treatment exist in the field of poison ivy therapy and prophylaxis. Until more certain methods are developed, however, victims of poison ivy and its kindred plants will continue to be aided and relieved by such methods as are now available.

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Anti-Malarials

(Continued from page 384)

"As for the Atabrine patent, we will study the matter in conjunction with the Justice Department and check with the Public Health Service to see how great is the demand for it. Whatever action we find necessary will be taken."

Since there is not the quantity of trees available in Central and South America as was available in Java, and since the South American trees are not as easily accessible and contain less than half as much alkaloids as the Java bark, it is likely Totaquina will be extracted and used in place of quinine sulfate. Totaquina is a mixture of all the alkaloids of cinchona bark and is recognized in the British Pharmacopoeia. The B. P. recognized Totaquina for the purpose of making available other forms of cinchona barks that might be locally produced.

The U. S. Dispensatory says that "There is strong evidence that cinchonine is at least equal, and possibly superior, to quinine as an anti-malarial, and cinchonidine and quinidine are but little inferior. Consequently, it is obvious that this mixture (Totaquina) is but little inferior to pure quinine."

Producers of quinine in this country are investigating the various alkaloids of cinchona bark other than quinine in an attempt to determine their value. They are uncovering surprising results. As a result of these investigations they are beginning to wonder why all the emphasis has been placed upon quinine sulfate with regard to malaria.

EMULSIFIED PERFUMES AND TOILET WATERS

By JOSEPH KALISH

THERE is no immediate likelihood that alcohol for cosmetic or perfume use will become more plentiful and, in fact, there are strong indications that present limited supplies will soon be drastically curtailed. No manufacturer in this industry will question that explosive and other war chemical production, in which alcohol is essential, must come first, since we all realize now that we must win this war conclusively if we hope ever to regain a semblance of normal existence.

Ethyl alcohol is a volatile liquid with a mild odor and is a good solvent for a large variety of organic substances. It is completely miscible with water and substances dissolved in ethyl alcohol often remain in solution after the addition of considerable water. These properties are of course not unknown to users; they are cited to indicate the factors that must enter into the selection of substitutes.

Alcohol has always been considered a completely indispensable ingredient of perfumes and toilet waters, since it acts as a solvent for the active perfume oils to make a clear, attractive solution and evaporates quickly and completely without interfering with the odor. The selection of a suitable substitute is influenced by the same war economy which makes the use of substitutes necessary.

In order words, despite its known disadvantages in this application, isopropyl alcohol, the natural substitute for ethyl alcohol, is no more readily available. Various glycol ethers are very good solvents for perfume oils and might easily stand substantial dilution with water. In this way, their relatively low volatility could be minimized; but their supply is no freer than that of the alcohol they might replace. All along the line, the organic solvents that suggest themselves as possible substitutes for alcohol, have already been enlisted for the duration.

Imported essential oils are themselves becoming scarcer as sources of supply fall into enemy hands and precious shipping space cannot be spared even for high value, low bulk, but luxury items. Synthetics are necessarily being produced on an increasing scale in this country and their skillful application leads to quite satisfactory perfumes. Now natural oils may be processed to remove a substantial proportion of their less soluble ingredients, to make terpeneless oils. Among others, these are often characterized by much greater solubility in usual solvents and even in water. It seems to us, however, that sufficient research might well lead to a series of attractive odors practically completely soluble in water alone, or at least sufficiently soluble to permit the manufacture of toilet waters. Terpeneless oils and soluble synthetics cannot, however, be the full answer to the problem since manufacturers with some perfume supplies on hand and established brands might not be able to create proper duplication.

A wholly satisfactory solution to the problem of alcohol substitution, it seems to us, should lie in the field of emulsified preparations. An emulsion consists of small particles of an insoluble liquid suspended in another liquid, with the addition of other components to stabilize the emulsion and prevent coalescence of droplets. Depending upon the size of the droplets, their refractive index relative to the surrounding liquid, and the presence of other substances, emulsions may be transparent or opaque.

The solubility of essential oils, in water, as is known, is very slight. Alcohol dissolves the oils, but dilution of the resulting solution with water often results in reprecipitation of the oils. Soap and alcohol together permit larger additions of water than oil solutions in alcohol alone. Finally, by the use of certain special soaps, aqueous solutions free from alcohol can be made with as much as 40 per cent. of oil. The solutions may

The very heavy demand for alcohol for direct war needs makes it necessary that Cosmetic Manufacturers find some way of using less of this important material or doing without it completely. This article points the way.

be diluted to an almost unlimited extent with water and will remain transparent and stable.

Some precautions must be taken during manufacture of these special emulsified perfumes. The mixing vessel and stirrer must be thoroughly dry; the oil is mixed with the appropriate soap solution and mixing must be continued until no trace of insoluble oil remains.

The finished product is usually a slightly viscous, clear amber liquid, which may be diluted with water to any extent without losing its transparency to transmitted light. In most cases it is also transparent to reflected light, even when greatly diluted. The emulsions withstand temperatures from freezing to body heat and the diluted products are usually just as stable.

Special emulsifying soaps that have been recommended include potassium oleate, potassium ricinoleate, triethanolamine linoleate, and ammonium ricinoleo-sulfate. These are made in the following way: seventeen parts of oleic acid are heated to 100° C. with 3.8 parts of potassium hydroxide dissolved in 80 parts of water, mixed by gentle shaking, cooled, and volume brought up to 100 parts by the addition of water. Adjust the pH of the solution with acid or alkali until a sample gives a faint pink color with phenolphthalein. Potassium ricinoleate is made by neutralizing castor oil fatty acids with the equivalent weight of potassium hydroxide, adjusting to neutrality with phenolphthalein, and adding water to make a 33 per cent. solution of the soap. Triethanolamine linoleate is made by neutralizing linseed oil fatty acids with triethanolamine, while ammonium ricinoleo-sulfate is concentrated turkey red oil, ammonia finish. The commercial product should be treated with ammonia until it is only just barely acid. It seems likely, moreover, that good emulsifiers could be made by combining these and other similar unsaturated fatty acids with amino-glycols and similar organic bases.

Finally, opaque emulsions, similar in many respects to hand and skin lotions, may be made. Physical differences between hand lotions and emulsified toilet waters must be carefully noted. Although better hand lotions are inclined to be thick, with some illusion of body, emulsion creams must be quite thin so as not to discourage application to fabrics. It is considerably easier to make a stable thick lotion than a thin one, since the added viscosity tends to prevent separation.

Probably the simplest type of mixture that might be tried would consist of a combination of a low viscosity gum solution with the perfume oil, with or without the addition of a little fixed oil. Possible gum substances, with known emulsifying power, include acacia gum, special grades of gelatin, sodium alignate, methyl cellulose, etc. The oil would be thoroughly mixed with part of the gum solution, the mixture preferably homogenized, and then diluted with gum solution or water.

To approximate hand lotion formulas more closely, the inclusion of a small amount of soap or similar emulsifying agent will probably result in greater stability. Glyceryl monostearate should be an effective emulsion stabilizer, but mixtures will probably be somewhat too thick for the purpose. In making hand lotions, it will be remembered that in addition to the actual emulsifier, such as soap or one of the synthetic emulsifiers, an auxiliary is usually included in the formula to improve stability and make the solution thicker. This auxiliary (cetyl alcohol, excess stearic acid, etc.) is preferably omitted from thinner preparations, but the use of a colloid mill or some other effective emulsifying machine will be virtually indispensable.

NUTRITION IN WEIGHT REDUCTION

By L. STAMBOVSKY

WHY are people fat? Not all of them of course, but a goodly number of our citizens, young and old, display inflated and distorted anatomies. It certainly is not attractive nor healthful, in fact obesity is definitely pathogenic in a number of serious disorders. Socially, for the female being overweight is sheer tragedy, and for the male, it is a physical as well as a social handicap.

The answer to this paradox may be found in certain pre-evolutionary instincts and their relationship to life today. Nearly all physiologic functions dependent upon voluntary execution, are accompanied by pleasurable sensations. In this manner, Nature assures herself that these duties will be carried out—i.e., by offering a reward for the performance of a vital act. Defecation, gratification of thirst, sex, and what concerns us herein, the satisfaction of hunger are examples of this mechanism. Involuntary processes, which function without conscious thought on our part, such as breathing, digestion, perspiration, etc., are not accompanied by sensibility, pleasurable or otherwise, except under abnormal conditions.

To make certain that the energy, growth, reconstructional and catalytic requirements of the body would be fulfilled, the phenomenon of hunger was created. Ungratified, it can be painful and disconcerting. Appeasement results in a stimulation of the taste buds and a cessation of other hunger symptoms, which combined effects, produce the well-known pleasures of eating. But there is another instinct operating concurrently with hunger—the innate impulse to gorge, to devour all within range of hand and eye, to eat as if food would not be available again for days. All this, experienced by everyone at sometime or other, is a hangover of innumerable years ago when Man ate with painful irregularity. A lucky "kill" today might mean a superfluity of food, but Man had been taught by experience that many days might elapse before any sort of nourishment would again be obtained. Therefore Man found it necessary to stuff himself to the utmost while he had the opportunity, in order to store sufficient sustenance to carry him over periods when food was not available.

Through countless generations this behavior became instinctive. Today, the subconscious memory of those prehistoric times still prevails but the conditions are no longer the same. Modern eating habits have come to be regarded as breakfast at eight, lunch at twelve and dinner at six. In other words, food may be had every four or five hours. If appetite and instinct are allowed full play at these frequencies, and they repeatedly are, obesity is inevitable.

There is still another factor responsible for overeating——psychogenic hunger or the hunger of nerves. Modern living with its high pressure drain of nervous energy, its complex social codes and relationships, its frustrations, disappointments, and inhibitions, the ceaseless struggle for a place in the Sun and the failure to attain same, these and other factors combine to produce an unbalanced or weakened emotional state. These persons seek an outlet, an escape, a diversion for the moment from vague uneasiness, from unpleasant obligations, from boredom, from fear or because of their psychogenic disbalance, they cannot resist mild and meaningless hunger pangs; and so they turn to food irrespective of their actual need for same. Concentrated carbohydrates, ex., candy, pastry, etc., provide a powerful gastric diversion. All foods seem to gratify their pseudo-hunger but those offering the most potent taste stimulus are favored. Whatever the etiology responsible for this abnormal food consumption, if permitted any length of time it has but one conclusion—gross obesity plus the acquisition of what has now become a formidable habit—the irresistible desire for food where ever and when ever possible.

Least of the factors accountable for adiposity is endocrine disbalance, which usually involves a hypothyroidism or hypopituitaryism or both. The patient and occasionally the physician following the lines of least resistance, often blame the above disorder for the condition. But this diagnosis even if made in sincerity is rarely correct. If one were to observe these cases of so-called glandular disturbance over a 24 hour period, it would soon be apparent that despite protests of dietary frugality, they were in truth gluttons. Studies

People have long sought to get thin by the use of drugs and certain questionable firms sought to supply this demand. But there is a way to get thin without danger, and in this method products of the drug manufacturers play an important and a legitimate part.

made by the writer lead him to believe that glandular obesity comprises not more than one per cent. of all cases. Dr. Hilde Bruch, (Bruch, H. Obesity in Relation to Puberty, Jr. Pediatrics, 19:365, 1941), reports on a study covering 200 obese children. Height, weight and sex function and characteristics were observed to be in advance of the mean. These findings preclude endocrine etiology. Lack of exercise is also charged as being another causative factor. If exercise were deficient or totally absent, it would be of but small import. It is absolutely impossible for the human engine to dissipate by physical exertion, the potential energy that can be obtained by excessive food. So efficient is the body that a cube of sugar will supply the necessary energy to run 100 yards in ten seconds. A man doing hard labor eight hours daily requires but 3500 to 5000 calories. What impression can eight hours at a desk followed by a stroll up the avenue make on such an intake as this. A caloric ingestion of the above magnitude is not all difficult especially by an unbridled consumption of concentrated sugars and starches. Interesting information can be gathered by observing eating habits at other than regular meal time. The ubiquitous soda fountain on a hot summer day when energy requirements are at their lowest, will reveal the pathetic spectacle of the grossly obese stoking up with hundreds and hundreds of calories in the form of ice cream, pastry and other gastronomic temptations. In between snacks for refrigeration purposes or otherwise, added to unrestrained meal time activity, plus a midnight bite can easily add up to 5000 calories. Even more ludicrous is the man who goes to gym, works himself up a voracious appetite and then proceeds to eat an amount double that of what he just burned. And then he wonders why he just can't lose any weight.

Dangers of Overweight

It would be bad enough if this superfluous intake consisted of self sufficient foodstuffs. In general it is not self sufficient but on the contrary, "parasitic," mostly carbohydrates in the form of devitalized white flower and white sugar. Carbohydrate metabolism inexorably requires thiamin and probably other members of the "B" complex must be present. Consequently, here is an additional demand on a possibly already vitamin deficient diet, leading to avitaminosis and a multitude of symptoms thereof. Over eating throws a tremendous load on the entire gastro-intestinal system. Digestion falters and is weakened. Efficiency of absorption is lessened. Constipation is a frequent symptom of excess which in turn introduces autointoxication and a host of related disorders. These symptoms, concertedly add up to such syndromes as ulcers, hyper or hypo acidity, diabetes, neoplasms and other gastro-intestinal pathologies. There are other maladies of even more serious termination, which statistically have been proven to be accompanied by and attributable to obesity. Cardio vascular diseases which embraces heart disease, hypertension, vascular morbidity and other circulatory difficulties, by far outstrip the mortality rate of all other diseases. Also gastro-intestinal pathology occupies an appreciable position.

Life insurance statistics prove irrefutably that the foregoing mortalities exact their greatest toll among the obese. This is easy to understand. The digestive system by virtue of continued abuse, becomes exhausted and succumbs to any one of a number of gastric disorders. The intestinal tract cannot fail but to react in the same way. In fact diabetes is more or less regarded as a depletion of insulin producing power brought about by carbohydrate excess. As for the cardio-vascular diseases, the extra load thrown on the heart by having to carry ten to fifty pounds of adipose must be compensated by increased cardio output, which in turn shortens the life of the organ. Of greater significance is the danger of fatty infiltration into the heart muscle and sac, weakening the cardiac musculature and embarassing its operation by crowding. The kidneys are punished by the added effort necessary to eliminate abnormal amounts of waste material—the end point of superfluous nutrition. Eventually impaired kidney function plays a role in the appearance of hypertension. High blood pressure ultimately

weakens or breaks down vascular musculature, paving the way for circulatory failure and potential rupture.

The relationship between obesity and longevity and cancer is noteworthy of mention. Dr. Clive M. McCay of Cornell University is of the opinion that hungry people live longest—if they are not too hungry and are supplied with all essentials necessary for life. He found from animal studies that rats on a half basal diet lived appreciably longer than those on full diets.Their heart rates were slower and their entire metabolic rate was reduced, (Readers Digest, March 1942). Maurice B. Visscher, M.D. and associates, (Modern Medicine, February 1942), reports as follows: by restricting carbohydrate and fat intake and keeping the protein, mineral and vitamin content of the diets constant, there occurred a decrease in the rate of cancer, from 67% to zero in a C_3H strain of virgin female mice. These animals when allowed to eat all the food they wanted, 67% developed mammary cancer in 16 months, whereas if the caloric value of the diets fed to other mice of the same strain was controlled, although the amounts of protein, vitamins and minerals were maintained at optimum levels, these mice *did not* develop cancer. It was further found that the low caloric groups lived longer than the unrestricted animals. Quote Dr. Visscher, "these results indicate that simple caloric restriction can generally reduce the frequency of cancer during the usual period of maximum incidence; the implications with reference to the occurrence of human cancer is tacit but remains to be proved."

From the foregoing it would seem with but little or no doubt that obesity is a source of grave physical deterioration and is not without strong suspicion as a direct or indirect participant in neoplastic disease.

Prevention of Obesity

The acceptance of the luxuries and conveniencies of civilization simultaneously imposes obligations, namely the exercise of intelligence and control. Because food is easily and constantly in range is no license for a promiscuous dietary. Intelligent restriction must be practiced and should begin in early youth. The consumption of powerful taste stimulants such as candy, pastry and soda fountain concoctions must be rigidly supervised in the young. In adolescence education should illuminate the multiple handicaps and dangers of adiposity and the necessity for superimposing rational regulation over appetite as a quantitative guide. In adulthood, psychogenic hunger must be completely eliminated. If will power in unable to do so, the substitution of non-caloric diversions may be resorted to. A cigarette will serve in this capacity or absorbing interests or occupations. In severe cases professionally treated, sedatives of phenobarbital type will help the patient over trying moments. A glass of water will often allay the desire to eat. Low calorific foodstuffs may be advantageously employed at all times. Meals should be planned on the basis of calory expenditure exceeding by at least 20% calory intake. Naturally, the requisites for comprehensive nutrition must also be observed either in the cure or prevention of obesity.

Cure of Obesity

The best treatment for excess adipose is to avoid it by an adamant attitude of non-surrender to those weaknesses responsible. But what of the already existing cases? The painful truth is that there is no short cut towards weight reduction. Success can be achieved only by reducing caloric intake below daily demands. Mere equilibrium obviously will not result in any material effect. Thyroid and benzedrine are appreciably employed as a pleasant easy method of "stream lining," especially by women. The pharmacology underlying their action is in the nature of a metabolic whip. In other words energy consumption and dissipation are accelerated. However these drugs are not without attending hazards. Thyroid can and has upset the balance of the entire glandular system. Benzedrine is a powerful stimulant of the central nervous system and is potentially cardiopathic and neuropathic.

Although now outlawed by common sense, the cathartics enjoyed considerable popularity as means of reducing. Its efficacy rests on a simple faculty—just rush the food through the alimentary tract before the villi have a chance to pick any of it up. Irreparable intestinal damage is a certain conclusion of such stupidity. In the interim, while this short cut to air-flow lines is being pursued, the body is being robbed of all phases of nutrition.

The most logical and least harmful treatment is by caloric regulation. In such a program, there are also dangers and the road is long and paved with much mental distress. The pitfalls to avoid are deprivation of vital factors utterly necessary for the maintenance of life itself, irrespective of the absence or presence of adipose. These essential nutrients are the proteins, fats, minerals and vitamins. How much of each are required? This can best be answered by noting the recommendations of the National Research Council herein reproduced. Application to individual living habits and sex can be easily made. Inasmuch as normal diets convey with difficulty the requisite amounts of vitamins and minerals, it is a certainty that a dietary limited to 1500 to 2000 calories will definitely not be able to do so. Therefore supplementation with proper amounts of required vitamins and minerals is indicated. There are other phases of nutrition equally as important as are these accessories.

The proteins are constructional substances. Their chief use is for muscle repair, although if conditions warrant, they can be de-aminized and burned for fuel. Protein starvation, if prolonged will be evidenced by wasting musculature and edema. This latter sign is brought about by an alteration of the osmotic character of the blood, through protein deficiency, which change permits a seepage of serum from the blood through the walls of the vascular system into adjacent spaces. Unless corrected, this syndrome is fraught with much

peril for other vital organs, particularly the kidneys. Protein as a rule is not stored as fat. Excess is either burned for energy or excreted. Protein has a high satiety value, i.e., it gives a satisfied feeling which persists far longer than that provided by the carbohydrates. Although the "Council," recommends an average of about 70 grams or 280 calories daily, 100 grams would not be too much for reasons outlined.

The fats contribute a service other and possibly more important than the release of energy. Animal research by Burr, G. O.; Burr, M. A.; Miller, E. S.; Evans, H. M.; et. al., yields indisputable evidence of their necessity for the preservation of integumental organs, for resistance to disease and for normal growth. Cornbleet, T., (Archives of Dermatology and Syphilology 31:224, 1931), reports the successful treatment of 87 cases of eczema with certain fats. McCollum, E. V. and Becker, J. C., (Food, Nutrition and Health, Baltimore, 1933), state that a diet containing everything else essential but lacking in fatty unsaturates will fail to maintain life. The bulk of evidence regarding the role of the fatty unsaturates is based on animal work. Little or no clinical references of a scientific type were found, that is to say work in which controlled conditions eliminate the myriad contingencies which influence the accuracy of noted results. On the hypothesis that animal physiology more or less parallels human physiology, Stambovsky conducted clinical investigations relative to the action of certain fatty unsaturates in the maintenance of epithelial integrity. The work thus far seems to indicate that dandruff is a fat deficiency symptom and can be cured by the inclusion in the dietary the proper quality and quantity of unsaturated fatty acids. Inasmuch as 70-95% of the entire population suffer from this malady, and if fats are curative, it is a logical assumption that these persons are fat starved.

Therefore it is of particular importance to include sufficient fats in the reducing regime. Ten to twenty per cent. of total intake have been suggested. The writer feels this is not enough and recommends at least one-third. For instance if it is decided that 1500 calories is correct for a treated case, then one-third of 1500 is 500, divided by 9, (fats yield 9 calories per gram), translates 500 calories into 55 grams or about 2 ounces. This can be eaten in the form of oil on salads, (not mineral oil), fatty meats, sour or sweet cream or incorporated in baking.

The vitamins may be called physiologic catalysts, entering into metabolic processes but are not affected thereby. Newly discovered criteria for diagnosis, subclinical and acute, now reveal that hypovitaminosis is existent among at least 40% of America's population. These people are not on reducing diets but represent cross sections of average nutritional habits. It therefore becomes apparent that obesity cures, with their quantitative restriction, must make strenuous efforts to assure the provision of adequate vitamin content, by natural or artificial means. Hypovitaminotic symptoms should be carefully watched for during obesity therapy.

Vitamin "A" deficiencies are soon evidenced by dry, scaly skin, eye inflammation, night blindness and a lowered resistance to disease. Thiamin depletion is manifest by neurasthenia, peripheral neuritis, constipation, fatigue, cardio-pathology, and muscle tenderness. Ariboflavinosis ("B_2") will quickly repercuss in the form of ocular symptoms, (burning, tearing, visual fatigue and enlargement of blood vessels), chapped lips, enlarged pores and blackheads. Nicotinic acid must be supplied if the following symptoms are to be avoided; soreness of mouth and tongue, pruritis, dermatitis especially on areas exposed to light, diaorrhea and psychosis. This latter phase of the syndrome is frequently most overlooked. This is regrettable since it is one of the earliest signs, when there is still time to prevent an acute involvement. Vitamin "C" must not be neglected even in normal diets. Deficiency will produce a syndrome composed of general weakness, capillary fragility, (black and blue marks upon slightest provocation), anemia and if extreme, scurvy.

Vitamin "D" is less important in adults than in children since its chief function seems to be in calcium fixation necessary for the growing organism. However the adult probably does require the presence of this accessory. Deprivation if serious will eventually exhibit itself by such pathologies as dental caries and osteomalacia. Pantothenic acid and pyridoxine are now regarded as being of considerable consequence in the human economy although definite requirements have not been established. Rats when fed pyridoxine free diets soon develop a dermatitis; chicks, rats, guinea pigs, dogs and silver foxes deprived of pantothenate show retarded growth, dermatitis and graying of the hair. This latter phenomenon is of significance inasmuch as achromotrichia has been cured by pantothenic acid in humans.

Minerals, as a vital dietary constituent, have been more or less pushed into the background. Their absence can lead to sequelae comparable in gravity to any of the already discussed essentials. Those generally conceded to participate in human physiology are calcium, phosphorous, iron, copper, iodine, salt, magnesium, potassium, manganese and zinc. We need concern ourselves only with calcium, phosphorous and iron inasmuch as the balance are required in extremely minute quantities, or exist so plentifully that in the most strangled dietary, a sufficiency would be found.

Iron deficiency anemia is far greater among all ages and sexes than is generally supposed. Etiologic factors are infectious diseases, malnutrition, hemorrhage, chronic blood loss, pregnancy and menstruation. The restrictions of weight reduction must take cognizance of the above for the simple reason that an anemia might exist even before commencing treatment. This is especially true for females who are subject to a regular monthly loss of considerable iron through menstruation.

(Continued on page 396)

RESTRICTING COSMETICS

While the restrictions to be placed upon the cosmetic industry have not been announced but are in the making, it appears from the statements made by officials in the WPB that this problem is being tackled in a most peculiar way. The statements are to the effect that the WPB officials have made up their minds as to what cosmetics are essential and what ones are non-essential. Then having made up their minds to this, the officials intend to curtail the production of the essential ones to some extent, and to standardize them as to varieties and shades. But further they will drastically curtail, if they do not eliminate entirely those which they deem non-essential.

They talk vaguely of alcohol and glycerine that are used in cosmetics as the reason why the production should be curtailed. They speak also of containers that are used in packaging cosmetics as being one of the causes. They further state that scientific apparatus might not be allowed to cosmetics because cosmetics plants are deemed of no use in the production of things vital to the war effort.

The method of approach to this action causes us to wonder what is the reason behind it. If it is a matter of raw materials that are essential to the war effort, why not say so and let the industry know just what they are. The industry is willing to make such sacrifices as are necessary. They are willing to pay any taxes required. They are willing to increase their merchandising efforts to overcome any sales tax put on their products. They have taken the curtailment of alcohol, glycerine, and packaging raw materials in the proper spirit, and they have immediately sought to vary their formulas and their packages so that these materials essential to the war effort would not be needed. And they have increased their merchandising efforts to sell these new type products to the public.

There is certainly no one in this industry who expects that "business as usual" will continue. Nor is there anyone that believes that an exception will be made in his case. By this time it is plain, even to the recalcitrants, that this is total war in which everyone will be affected. What is necessary to the success of the war effort must and will be done. There can be no delay or hesitation on the part of anyone, time is vital.

But the most good for the war effort can be accomplished and the most time can be saved by attacking the problem directly. Let the manufacturers know what is necessary. Let them know what raw materials are to be taken away from them. Then if the manufacturers can substitute other materials for those which the WPB does not want them to have, they can continue in business. Certainly, the women of the country will want cosmetics if they can be had without interfering with the war effort. As we point out in another article in this issue, the large number of women now employed to further the war effort are greatly in need of cosmetics. Hand lotions,—one of the cosmetics which the WPB deems non-essential,—is more essential than ever because of the increased employment of women. Why not give the cosmetic manufacturers an opportunity to make hand lotions with materials other than those which they might now use which are vital to production of materials used directly in the war effort?

The cosmetics which the WPB considers essential are lipsticks, rouges, face powders, and cleansing creams. The ones they consider non-essential are hand lotions, toilet waters, and perfumes, particularly those perfumes of the "luxury" type. The WPB says that very few of the essential oils necessary to the production of perfumes are produced in the Western Hemisphere, and considers this a reason why production of perfumes should be curtailed. We fail to follow this line of reasoning. The industry is getting along quite well without these imported oils by obtaining such oils as are available from our Central and South American neighbors as well as through greater production of synthetic aromatics. While there might possibly be some objection on the part of the government to the consumption of certain raw materials in the production of aromatics, there should be no objection to the further development of trade with the nations to the South of us.

The idea of setting up these arbitrary classes of "essential" and "non-essential" cosmetics seems a little ridiculous. Certainly no one person or group of persons can state with any degree of accuracy what cosmetics

The W.P.B. is threatening to curtail production of cosmetics in a manner that appears to be without rime or reason. A proper approach to the problem would be of real benefit both to the war effort and the manufacturers of cosmetics.

fall into these two classifications. Certain women might consider lipstick, rouge and cleansing creams essential, while others might be far more interested in having sufficient hand lotion, toilet water, or perfume. As a further example there are still a great many women who never use nail polish, while an enormous number of women feel positively undressed without it. However, if curtailment of nail polishes is to be ordered by the WPB, it should be ordered solely from the angle that certain ingredients of nail polishes are vital to the war effort and not from the angle that nail polishes are considered non-essential. Certainly if it is possible for manufacturers of nail polishes to produce suitable substitutes for those raw materials that the war effort demands, then they should be allowed to do so.

The same line of reasoning should be applied to the packages in which cosmetics are packaged. Tin and brass have been eliminated from cosmetic packaging, but suitable substitutes have been found. And the substitutes that are now being used will be substituted for again if the first substitutes are later deemed essential to government needs. There will be no lack of cooperation on the part of cosmetic manufacturers if the problem is approached in this way. Cosmetic manufacturers want to continue in business if they possibly can. And they are willing to go through a lot to continue in business during the present period. But they want to keep as much of their businesses as possible, and they expect government cooperation to this end.

Intelligent consideration of the reactions of men and women has been displayed by the WPB in its curtailment of men's and women's clothing. In both these instances, the changes that were made were obviously for the purpose of saving materials that must be had for the armed forces. No one is affected unduly by these orders, and no one can fail to realize why the changes were made and in what way they are effective. Therefore every man and woman buying the new style clothes will have a feeling that he is directly contributing to the war effort, and furthermore, this contribution will not prevent the man or woman from clothing themselves stylishly and properly. The orders that were finally promulgated for control of clothing manufacture are far removed from the original idea of the "victory suit" with which the country was first threatened. Not that further changes resulting in something as drastic as the "victory suit" might not be necessary at a later date, but at that time the people will realize the necessity of further restrictions and will accept them in the proper spirit. Also, under such conditions the change would be more gradual to the benefit of all concerned.

While one might be of the opinion that under total war conditions, all peacetime requirements that are not essential to a bare existence should be abolished, such a state of affairs does not result in a maximum effort being made. This is why there is so much consideration being given to the demands of labor, and why the forty hour week with increased pay for overtime is not being abolished. It is also the reason why WPB Chief Donald Nelson and Army officials oppose any bill that would drastically limit the profits of manufacturers producing war goods. Human nature demands some incentive to spur it to the utmost, and the mere thought of winning the war is not sufficient.

This is the reason why Britain found it necessary to relent to some extent from its curtailment of cosmetic manufacture to twenty-five per cent. of what it normally was. The manner in which they relented took the form of a direct spur to production of goods needed for the war effort. They furnished free cleansing creams and face powders to those women working in plants producing war goods, and they further allowed these women to purchase lipsticks at the canteens in these plants. So in England a woman can be assured of her cosmetics by being associated directly with the war effort.

Arbitrary drastic curtailment of cosmetics in this country would be a serious mistake. If it is necessary to curtail the production of cosmetics, it should be done only after careful consideration of the many factors involved. Only in this way can the people of this country be made to realize why cosmetics have been curtailed and accept it as something that is absolutely necessary to the success of the war effort. The industry stands ready to aid the government in this undertaking, but they must be allowed to give their advice.

Nutrition in Weight Reduction

(Continued from page 393)

The symptoms of anemia are well known, namely pallor, abnormal fatigue, and general deterioration.

Sherman, (Sherman, H. C., Chemistry of Food and Nutrition, ed. 5 The MacMillan Co., New York), asserts that the most prevalent mineral deficiency in United States is that of calcium. This element serves several important functions, it enters directly into the osseous structure of the body, it is involved in the complex reactions of blood clotting, last but not least, the rate and force of the heart beat and calcium content of the blood plasma are related. Dental caries, excess bleeding, hyperirritability, and osteoporosis may be looked for in calcium starvation.

Phosphorous seems to be sort of a team mate with calcium. It enters into the composition of the bones and teeth and is concerned with the metabolism of carbohydrates and fats. As this mineral is quite common in many foodstuffs, the chances of deficiency are not great. The average person should obtain about 1.30 grams of phosphorous daily, (Heinz Nutritional Charts).

The National Research Council recommendations should be consulted for guidance in determining the minimum vitamin and mineral supplementation that should be afforded every case of weight reduction.

Summary:

1. Obesity can be cured only by reducing caloric intake below expenditure.
2. Drug therapy even in professional hands should be avoided is possible.
3. Inhibited therapeutic dietary must be fortified with those vital accessories known to be necessary for the conservation of health and life itself.
4. These factors are proteins, fats, vitamins and minerals.
5. Carbohydrates in the form of white flour and white sugar have been thoroughly devitalized. They can provide only energy which the patient does not need. Reducing foodstuffs should be divided between proteins and fats, with a minimum of concentrated carbohydrate.

PHYSICIANS RATIONED?

The following is taken from a news item in a recent edition of the "Atlanta Journal":

The war has made it necessary that the professional services of physicians must be rationed just as we now ration sugar and tires, Dr. James E. Paullin said in an address preliminary to the opening of the 13th annual session of the Southeastern Surgical Congress.

It will probably no longer be possible, except in emergencies, for a person to call a physician and expect treatment in the home, Dr. Paullin, prominent Atlanta physician and president of the American College of Physicians.

He declared that in the future, people must reorganize their concept of medical care and that the medical profession will have to establish large mass clinics where specialists and general physicians can care for large numbers of people in the shortest possible time.

First Aid Need. He added, furthermore, that the American population must be prepared to aid doctors in the recognition and treatment of diseases. Within the next six months we are going to see things happen that will need the services of persons trained in first aid and home nursing, Dr. Paullin asserted.

Monday night, Dr. Julian L. Rawls, of Norfolk, will give the presidential address. He spoke Sunday at the Academy of Medicine, and urged the civilian population to take its complaints to the doctor at his office rather than summon the physician to the home.

A doctor can see half a dozen patients in his office during the time it takes for one home call, Dr. Rawls said, pointing out that the war has caused a severe shortage of doctors at home.

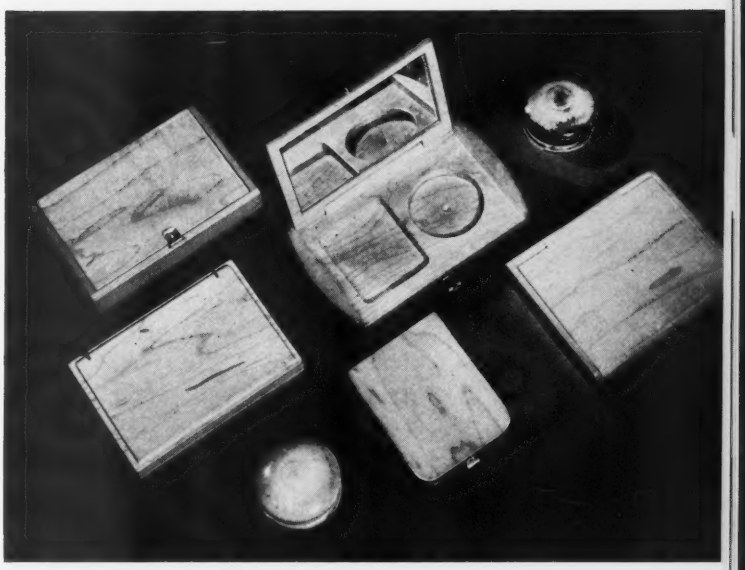
Night Calls. "I wonder if you realize that 75 per cent. of calls made on a physician at night are not necessary and could easily wait until morning without injury to the patient?," he inquired.

"There is nothing that disturbs the morale of your physician or breaks down his ability to work more than continuous repeated night calls."

MORE DRUGS NEEDED

The apparent shortage of physicians that will soon result from the induction of large numbers into the armed forces of this country is almost certain to increase the amount of self-medication employed by the people of this country. Furthermore, when people visit doctors at clinics, the doctors will be so busy that they do not consider the writing of prescriptions as essential as it is when they have more free time. Therefore they will probably order patients to take packaged medicines—ethical or otherwise—and they will probably tell the name of the required preparation to the patient.

This will bring about far greater purchases of drugs in their original containers. Furthermore, the labeling of packages, particularly as to directions of use, will take on an added significance during the months ahead. An increased responsibility will fall upon the manufacturers of drug products during this period of what will probably be greatly increased business. It is hoped that manufacturers will realize their responsibility and that they will cooperate to the end that increased work will not be thrown upon the Food and Drug Administration, the officials of which are now burdened with additional work resulting directly from prosecution of the war effort.



WOODEN LIPSTICK HOLDERS

MANY months before we were formally in the war, it was known that metals would be restricted to the point that metal cosmetic containers would be seriously curtailed and that substitutes would be necessary. Finally the order from Washington stopped completely the use of brass for this purpose. But when curtailment was first in sight, research was undertaken to produce containers from wood—a raw material that would always be plentiful. However, century-old woodworking plants held out no possibility of working wood to tolerances of 2/1000th or 4/1000th of an inch on a commercial production line. Neither could you get close fits in wood. Wood couldn't be rushed; wood had to age for months; wood was too fragile; wood had no tension.

However, wood lipstick containers began to move into commerce seven months after they were nothing but an idea. And the objections have all been overcome. These wooden lipstick containers are about half the weight of those previously made of metal and, surprisingly enough, maintain their finish much better than an enameled metal case, for example. They may be decorated to suit the customer or to simulate the appearance of the metal stick they are intended to replace. Or they may be finished to make the most of the grain of the woods from which they are made. At the present time, two styles are available—a simple two-piece style where the cap is removed and the stick revealed to its full length, or the more elaborate three-piece, push-up type, where the stick is completely enclosed and is pushed up by means of the familiar pin and groove construction. The finish which has been achieved on the inside is as impervious to color bleeding or to perfume as that of the metal sticks, according to the company.

The company which developed these new containers had never worked with wood before. For over 150 years, the Scovill Manufacturing Company had been fabricators of metal. The cosmetic container division was just one of the many divisions of the company and was a division that apparently was going to be scrapped by the war. Not that Scovill was going to suffer from the scrapping of this division because its entire productive capacity was thrown over to war work. But the company felt a definite responsibility to this industry which it had served so long. Hence, in a serious attempt to aid its friends and long-time customers in the cosmetic business, the industry decided to investigate substitute materials with these apparently successful results.

CONCERNED ABOUT COLLAPSIBLE TUBES?

*Sheffalloy

IS THE ANSWER FOR OUR CUSTOMERS

"SHEFFALLOY" is our trade name for a collapsible tube metal newly developed by our research staff. The less critical metals are employed, permitting a big saving in the metals more essential to National Defense. "Sheffalloy" is an excellent alternative for metals normally used, maintaining all the characteristics of appearance, pliability and strength for which New England "Sheffield Process" Tubes are widely known. Comprising a blend of available metals . . mixed, melted, tempered and toughened according to our exclusive Sheffield Process, Sheffalloy Tubes will preserve and protect your products more efficiently than ever.

New England SHEFFALLOY Tubes have been tested and proved highly satisfactory for many products, including Tooth Pastes and Shaving Creams. Used with our extensive series of VINICOTE* Inner Coatings, these sturdy tubes will efficiently package practically all varieties of tubed products.

Tough SHEFFALLOY Metal is available in limited quantities only from New England. It's our contribution in the National Emergency towards relieving the stress of tube metal shortage, and to help protect the business primarily of our regular customers. We look forward, however, to the time when sufficient metals are available to offer Sheffalloy Tubes in sufficient quantities for our regular accounts and possibly aid many other buyers of good collapsible tubes.

New England SHEFFIELD PROCESS TUBES

*TRADE MARK REGISTERED

NEW ENGLAND COLLAPSIBLE TUBE CO.

3132 SO. CANAL STREET, CHICAGO • NEW LONDON, CONN. • W. K. SHEFFIELD, 500 FIFTH AVENUE, NEW YORK
THE WILCO COMPANY, 6800 McKINLEY AVE., LOS ANGELES, CAL. • EXPORT DIVISION: 116 NASSAU ST., NEW YORK

MERCHANDISING NEWS and PACKAGING NOTES

PACKAGING SHOW:—The first comprehensive, factual analysis of measures that have been taken by various companies to adjust their operations to the most critical of problems in packaging, packing and shipping—that of shortages in basic materials—will be presented at the twelfth annual Packaging Conference of the American Management Association, to be held concurrently with the twelfth Packaging Exposition at the Hotel Astor, New York, April 14-17.

The conference program will center about measures successfully employed to align packaging activities with the war-created problem of existing and impending materials shortages. Major emphasis will be placed on "case stories" relating the experience in this direction of a wide variety of companies.

These case stories, according to the association, will give a panoramic view of what industry is doing to adjust its packaging to wartime needs, along three major directions: standardization and simplification; conservation and salvage; use of substitute materials.

In recognition of the fact that decisions made in Washington will necessarily dictate individual company decisions in packaging, packing and shipping, the conference program will feature an analysis of the materials situation by representatives of various divisions of the War Production Board.

An innovation in the program will be off-the-record intimate sessions at which there will be no specific papers, but informal discussions with various authorities present for a questions-and-answers exchange. The program opens at 10 o'clock Tuesday morning, April 14.

The Wolf Award presented each year in connection with this show to the best package of the year goes to General Foods for its "Post-Tens" package. Ten other packages received honorable mention, among them being the Military Service Kit by the Mennen Co., Newark, N. J.

Packages were judged on the basis of ten factors: buying information, display visibility, consumer convenience, production economy, beauty of design, merchandising ingenuity, use of color, construction ingenuity, use of materials, use of typography or lettering.

WELDED COLLAPSIBLE TUBES: Although it may be only of academic interest at the moment, "Soap, Perfumery & Cosmetics," of England printed the following letter by a Mr. O. J. Brunn in its February issue.

"I felt that it might perhaps interest you to become acquainted with a novel method of sealing collapsible tubes by welding and I therefore beg to send you enclosed two tubes sealed by the new method, one of which is filled with tooth paste and the other with shaving cream. The sealing may be performed on any existing tube filling and sealing machine to which a special electric welding attachment has been fitted.

"The principal feature of the new seal is complete air and liquid tightness and, in addition, a considerable saving in metal is attained by obviating the folding of the tube end. The normal folded seal of a collapsible tube has always constituted the weak point of this otherwise so useful type of container."

APOTHECARY SHOP CONTAINERS: Two lines packaged in apothecary shop style have put in their appearance during the past month. One of them—Orloff's "Attar of Petals"—has already been launched and consists of toilet water, cologne, soap and bath preparations in the $1.25 to $2.50 price range. The line is merchandised on an exclusive franchise basis and wherever possible in an "apothecary shop" setting.

The other line is by Allen B. Wrisley and is designed as a holiday presentation ready for showing to the trade about May 15. Glass and porcelain bottles house the "Blue Fern" cologne, while paper containers resembling the apothecary jars are used for the talc and crystal bubbling bath. Wrisley proposes to merchandise these new products in the form of sets—cologne, bubbling bath, and talc, at $3.95; cologne and talcum at $2.95; talcum and crystal bubbles at $2.00. The cologne, retailing at $1.95, will be the only item available individually.

THE COSMETIC TREND:—Department and chain store buyers are taking a more hopeful view of the prospects of their toilet goods counters. It is thought that cosmetics will be less affected by priority restrictions than other branches of business. The argument is that the consumers' larger earnings must have an outlet somewhere and that it might just as well be in cosmetics. Cosmetics, at least, can be made and packaged so as not to interfere with war needs. In fact, buyers see in many of the package changes a possibility for novelty drives.

Many stores are studying the refill business again and pushing sprays, atomizers, and dressing table containers for creams and toilet waters as a support of large size promotions of cosmetic utilities.

There will eventually be less variety in lipstick and nail polish shades, but the time is not quite here. New shades continue to be introduced for early spring and summer. Since there appears to be some doubt as to whether the consumer will continue using the dramatic shades or whether she will show some leaning towards the lighter ones, manufacturers are hurdling that issue by featuring two shades—one dark, and one very light. It is still somewhat doubtful whether the woman of today will go all out for those very light shades, but war or no war, there is a try at them each spring. So much activity in war work may, of course, make a difference but it remains to be seen at this point.

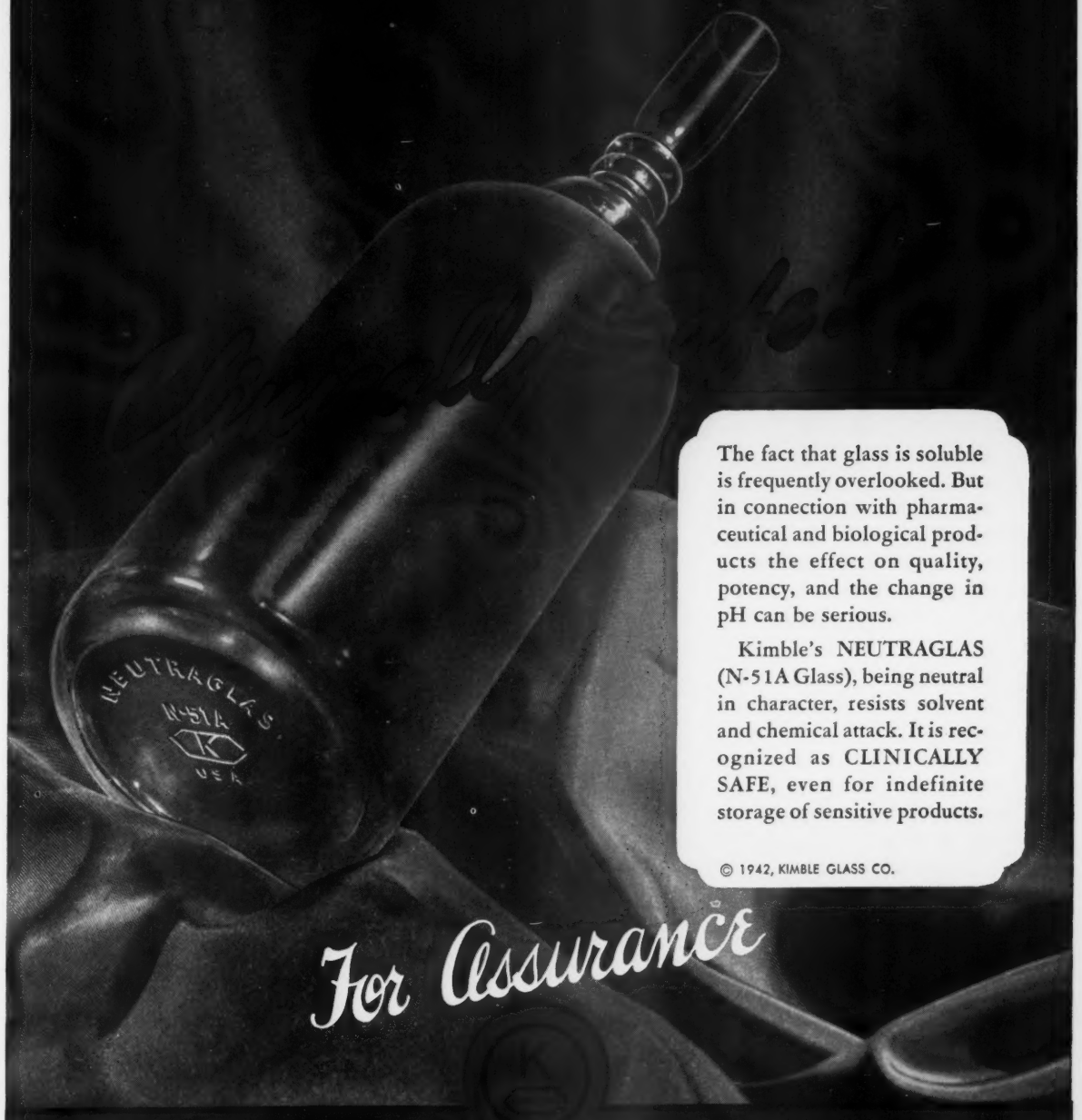
TIRES AND SHOPPING HABITS: It seems quite evident by this time that there will be a considerable change in the nation's shopping habits due to the necessity for tire conservation. Instead of driving to the nearest big shopping center the consumer in the small towns and rural areas of the country is already doing more and more of his buying from local merchants. This sets in reverse a trend which has been operating ever since the advent of the motor car and the consequent reduction of distances. Distance begins to mean something again if it has to be covered afoot or with horse-and-buggy or bicycle and the local retailer bids fair to make a strong comeback. Alert sales-managers are studying methods for educating him in handling problems of stock, inventory and display in view of the new conditions.

VICTORY VITAMIN CAPSULE: A Victory vitamin capsule was inevitable and now it appears sponsored by no less than Abbott Laboratories. They are called V-Caps on the label and they contain A, B^1, C, D, G and nicotinamide. The company reports that the V-Caps are identical in formula, except for 50 additional U. S. P. units of vitamin D, with the one recommended to the medical department of the U. S. armed forces by the Sub-Committee on Medical Nutrition of the National Research Council.

The product is packed 60 soluble gelatin capsules to a bottle. Two of the capsules are said to supply total daily requirements. The bottle lists at $3.75 each.

KIMBLE'S NEUTRAGLAS (N-51A GLASS)

. . NOW AVAILABLE IN MOLDED CONTAINERS . .



The fact that glass is soluble is frequently overlooked. But in connection with pharmaceutical and biological products the effect on quality, potency, and the change in pH can be serious.

Kimble's NEUTRAGLAS (N-51A Glass), being neutral in character, resists solvent and chemical attack. It is recognized as CLINICALLY SAFE, even for indefinite storage of sensitive products.

© 1942, KIMBLE GLASS CO.

For Assurance

• • • *The Visible Guarantee of Invisible Quality* • • •

KIMBLE GLASS COMPANY VINELAND, N. J.

For Fine Chemicals

SPECIFY HEYDEN

Glycerophosphates

The official and non-official compounds of Ortho-Glycerophosphoric Acid in a complete range

CALCIUM GLYCEROPHOSPHATE N. F.
Powder

IRON GLYCEROPHOSPHATE N. F.
Powder

MANGANESE GLYCEROPHOSPHATE N. F.
Powder

MAGNESIUM GLYCEROPHOSPHATE
Powder

POTASSIUM GLYCEROPHOSPHATE
50% and 75% Solutions

SODIUM GLYCEROPHOSPHATE N. F.
Crystals and Powder

SODIUM GLYCEROPHOSPHATE SOLUTION
50% and 75% Solutions

GLYCEROPHOSPHORIC ACID
25% Solution

Write for Current Products List

FINE HEYDEN CHEMICALS

HEYDEN *Chemical Corporation*

50 UNION SQUARE, NEW YORK

CHICAGO BRANCH: 180 N. WACKER DR.

FACTORIES: FORDS, N. J. • GARFIELD, N. J.

Why FOOL YOURSELVES

When C. C. White Wax 152/154 F.M.P. (White Ceresin) is not a "war baby", but has been used continuously since before the First World's War by discriminating manufacturers—in cold cream formulation.

C. C. Wax is available—dependable—and reasonably priced. Try it.

A. C. DRURY & CO., INC.

★

Gums and Vanillas
for 85 years
THURSTON & BRAIDICH
NEW YORK
Specialties:
Gum Arabic—Gum Karaya—Gum Tragacanth—Vanilla Beans—Tonka Beans.

★

Talc
Oldest and largest in U.S.A.
SIERRA TALC CO.
LOS ANGELES, CALIF.
Sierra Talcs approximate the ideal—chemically and physically—and excel in uniformity of milling and color.

★

Castile Soap
Of utmost uniformity
LACO PRODUCTS, INC.
BOSTON · NEW YORK
Manufacturers and Importers
Castile Soap U.S.P. "Laco"
Powdered—"Purls"—Bars

★

★

Beeswax
Since 1852
THEODOR LEONHARD WAX CO.
Established 1852
HALEDON, PATERSON, N. J.
Bleachers & Refiners of Bees-Wax. White Bleached Bees-Wax T. L. Brand. Extra Quality—U.S.P. and 100% pure.

★

Stearic Acid
Superiority founded on performance
THE HARKNESS & COWING CO.
CINCINNATI, OHIO
Manufacturers of Stearic Acid Saponification Process.

★

Medicinal White Oils
Qualities unsurpassed
THE ATLANTIC REFINING CO.
PHILADELPHIA, PA.
260 South Broad Street
Petroleum Products
White Mineral Oils U.S.P. for pharmaceutical and cosmetic uses. All gravities, all viscosities.

★

Precipitated Chalk
Sturge's "Sturgeon Brand" leads the world
H. J. BAKER AND BRO.
NEW YORK
Sturge's English precipitated chalk U.S.P. Extra Light—Dense.

As for ourselves—having engaged in the importation and distribution of raw materials from many parts of the world since before the first World's War, we confidently invite your inquiries and orders.

A. C. DRURY & CO., INC.

219 East North Water Street **Chicago, Illinois**

One Shortage We Americans Will Never Know

MATERIALS may be scarce and grow scarcer. The vital needs of our armed forces may be great and grow greater. But America will never run short of courage, ingenuity, resourcefulness—the ability to see the job through no matter how hard it is or how long it takes.

In packaging, this spirit finds expression in many ways. In placing production for war above all other considerations. In the development of new materials for civilian needs. In the design of packages that require less of the materials now available.

Ritchie design and production experts are busy now seeking new ways to meet the packaging needs of present Ritchie customers. Would you like to share in the benefits of this work? We will gladly study your package to see if design changes or material substitution can insure you a steadier supply.

This service is offered to any established manufacturer without cost, without obligation and without thought of gaining immediate sales.

W. C. Ritchie AND COMPANY

8834 Baltimore Avenue, Chicago

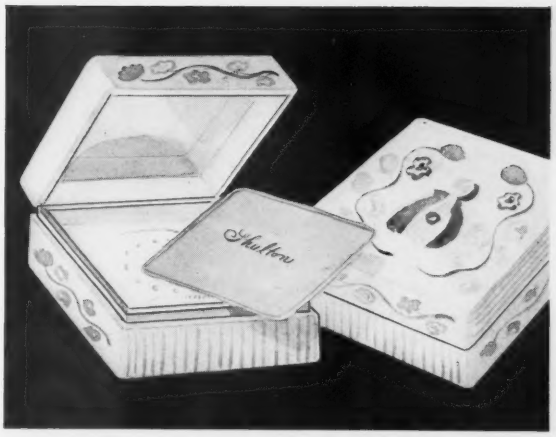
SET-UP PAPER BOXES
FIBRE CANS
TRANSPARENT PACKAGES

NEW YORK DETROIT LOS ANGELES ST. LOUIS MINNEAPOLIS DENVER MIAMI

POWDER IN ENVELOPES: Coty in England is now marketing its "Air-Spun" in envelopes, to replace its wartime box, adopted only last year. The announcement to British retailers reads as follows: "To help the national economy, Air Spun packaging has been further simplified. The new Refill Pack is a plump envelope of Air Spun Powder in a folding carton printed with the famous Powder Puff design. The pack has proved such a saving in board that we can now get more packs from our allowance, and so release increased supplies of Air Spun. Because this new packaging costs less, the retail price is now 1/5 including Purchase Tax. Same quantity—same quality. This new Refill Pack will replace the present wartime Box (Series 058) which is discontinued."

LIPSTICK CONTAINERS: Some of the non-metal type lipstick cases are beginning to make an appearance here and there, taking the form of wood, paper and plastic. Helena Rubinstein is the first to introduce a new type wooden lipstick case using the push-up button. Harriet Hubbard Ayer is featuring a new spring make-up shade in a new lipstick case made entirely of plastic in a petal design of pink and blue. Colgate, too, has been working on a plastic case for its syndicate store lipsticks.

Delettrez has launched its new Wildflower lipstick in an all paper case. It is the simple push-up cardboard tube which has been used for years for lip pomades, although somewhat sturdier. The lipstick itself is oversize to give it leverage. The House of Westmore experimented in the Canadian market with the simple push-up paper tube for its lipstick and found that it sold. However, a paper button push-up will be used in Canada in the near future. For the U. S. market, The House of Westmore has in production the paper swivel type case which will make its appearance some time in June, in both the 25 cent and 50 cent sticks.



Although there seems to be some confusion among manufacturers whether to push refills or not to push refills for lipsticks, Houbigant has come out firmly for the refill, using a band around each Translucid case telling the customer to save it and buy refills for it.

Several paper box manufacturers have been experimenting for some time with paper swivel-type containers. While samples have been submitted to quite a few cosmetic manufacturers who market sticks in the $1 price field, there is as yet no definite word when these will reach the market.

What appears to be the first paper-board vanity to reach the public is one which Shulton is using as part of a powder sampling campaign. It is 2½ inches square, complete with mirror and puff and employs a simple suction closure with the use of a shoulder of double layer plush. Other work on paper-board compacts is being carried on and Bourjois, for one, is reported to be planning a very handsome one.

NEW SHADES:—Revlon's new shades of nail enamel and lipstick, called "1942" and "1952," are symbolized by a miniature hourglass package of fuschia and purple. Nail enamel boxes, combination packages, and new lipstick cartons are bright and gay in fuschia and purple.

BECAUSE A HIGH-SPEED FILLING AND SEALING MACHINE

ALWAYS HAS A CHIP ON ITS SHOULDER...

THOSE modern high-speed automatic machines will always argue with anything *less* than perfection. They'll argue over a split fraction of an inch variance in caliper and cut of a carton. They'll argue over rigidity and folding qualities.

And when they argue, they stop work . . . jam-up your production line. Hard-to-get-help stands idle while adjustments are made. Time is wasted. Production is wasted. Money is wasted.

★ ★ ★

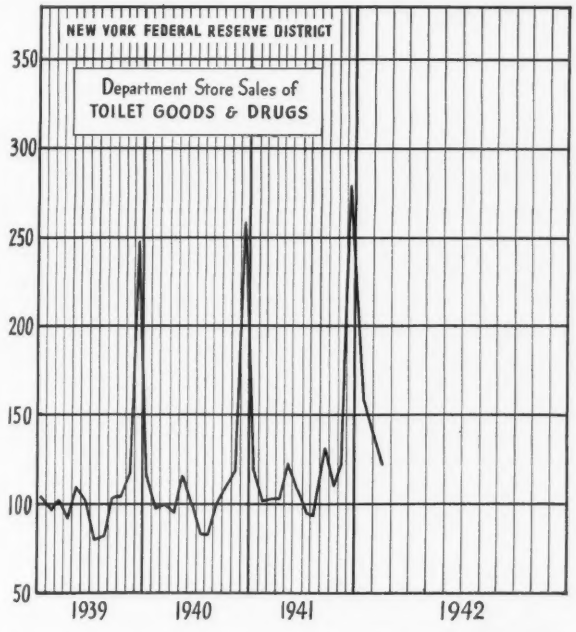
Many of the country's largest users of folding cartons have cut down such losses with Gardner - Richardson Precision - Engineered Cartons. They know that Gardner-Richardson cartons keep out of costly arguments with automatic machines . . . because they're *precision-engineered* to greater accuracy. They know that hydration tests, tear tests, break tests . . . tests of folding, sealing and printing quality are being constantly made in the Gardner-Richardson plants. They know that rigid control . . . constant inspections from pulp to finished cartons . . . insure accuracy and uniformity, order after order, shipment after shipment. And while the dependable, *precision-engineered* qualities of Gardner-Richardson have always been of No. 1 importance to carton users . . . they are even more important, *today*!

GARDNER-RICHARDSON — FROM PULP TO FINISHED PRODUCT — ENGINEERED PRECISION

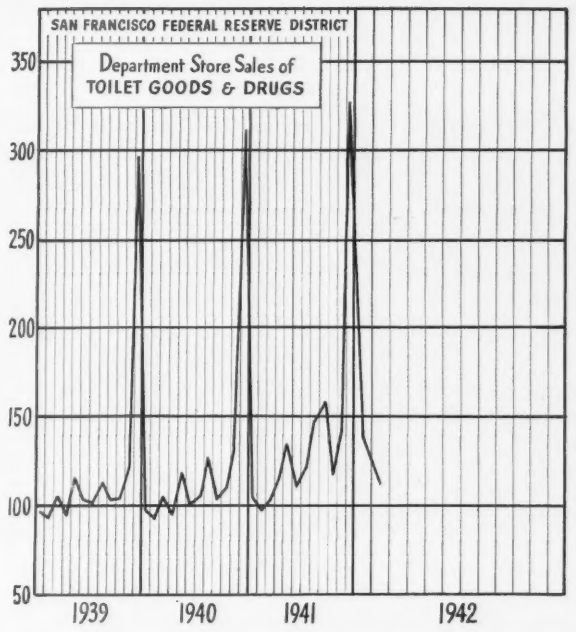
The GARDNER-RICHARDSON Co.

Manufacturers of Folding Cartons and Boxboard

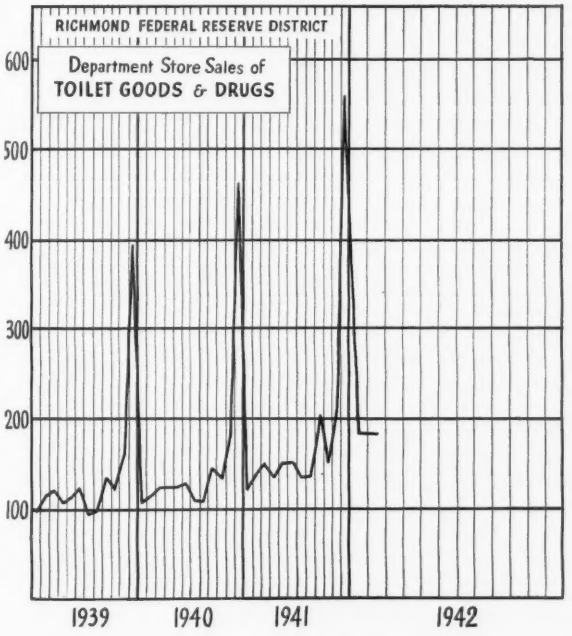
MIDDLETOWN, OHIO



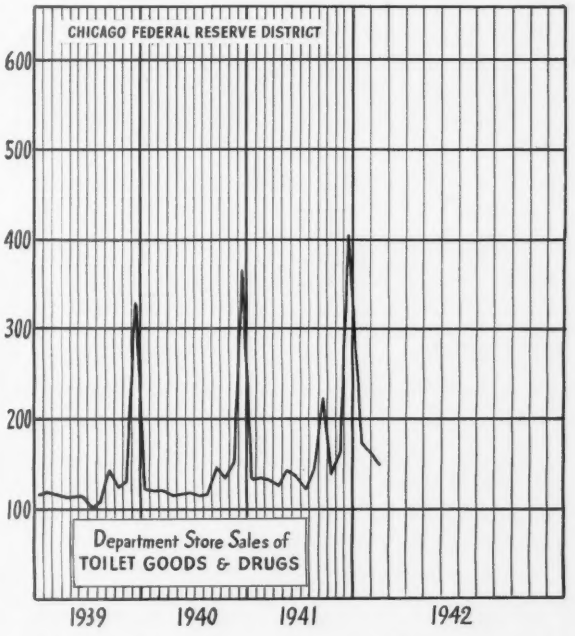
Sales of toilet articles and preparations by department stores in the New York Federal Reserve District were 21 per cent. greater in February 1942 than in the same month of 1941. This corresponds to unadjusted index numbers of 122.3 for February 1942, 157.5 for January 1942, and 101.1 for February 1941.



Sales of toilet articles and drug sundries by department stores in the San Francisco Federal Reserve District were 15 per cent. greater in February 1942 than in the same month of 1941. This corresponds to unadjusted index numbers of 112.1 for February 1942, 138.3 for January 1942, and 97.5 for February 1941.



Sales of toilet articles and preparations by department stores in the Richmond Federal Reserve District were 31 per cent. greater in February 1942 than in February 1941. This corresponds to unadjusted index numbers of 182.9 for February 1942, 183.5 for January 1942, and 139.7 for February 1941.



Sales of toilet articles and drug sundries by department stores in the Chicago Federal Reserve District were 11 per cent. greater in February 1942 than in February 1941. This corresponds to unadjusted index numbers of 148.2 for February 1942, 171.3 for January 1942, and 133.5 for February 1941.

COTY

LUCIEN LELONG

LENTHERI

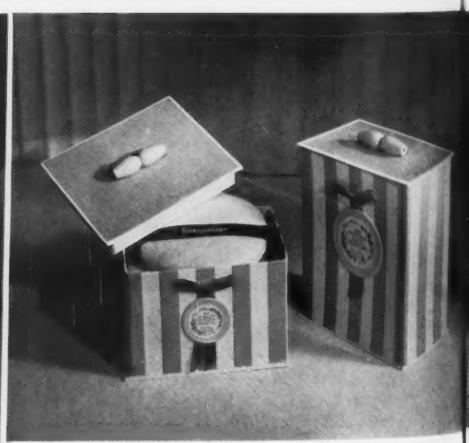
ELIZABETH ARDEN

JEAN NATÉ

KATHLEEN MARY QUINLAN

DORALDINA

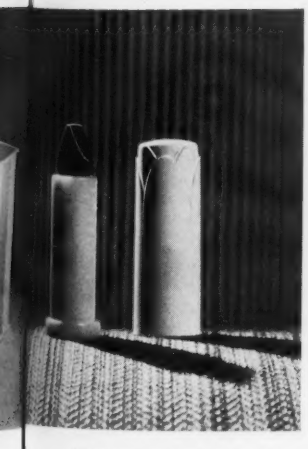
YARDLEY



ALLEN B. WRISLEY

NUTRITION RESEARCH LABS.

LA CROSS



HARRIET HUBBARD AYER

COTY

While Coty's Muguet perfume has been a favorite for some time, it is only now being presented in series form, renamed "Muguet des Boise" and packaged in gaily colored symbolic decor. "Muguet des Bois" is offered in three sizes of perfume, two sizes of toilet water, in the new cylindrical container for talc and in the drum shaped box for dusting powder.

LUCIEN LELONG

It looks like the old-fashioned coffer our grandmothers adored, but instead of pins and jewelry, Lucien Lelong's flower caddy holds four slender flacons of flower perfumes. There's a romantic Honeysuckle, a perky and gay Petunia, a spring-like White Lilac, and a flirtatious Mignonette.

LENTHERIC

Lentheric's "Folk-Dance" bouquet trio tucks Tweed, Miracle and Confetti Bouquet, in four-ounce flacons, into a quaint box decorated with gaily garbed peasant figures.

NUTRITION RESEARCH LABS.

Nutrition Research Labs. announce "Pendron," described as a multiple vitamin product, containing eight essential vitamins—A, D, B_1, B_2, B_6, C, Niacin Amide and Pantothenate Calcium. Pendron is made only in the two-color hard gelatin capsule.

RICHARD HUDNUT

Violet Sec, a traditional Richard Hudnut favorite, now appears in a new dress. The new color scheme of the packaging is flirtatiously gay in pink and yellow, with an old-fashioned feeling made modern. The line consists of: perfume, toilet water, cologne, talcum and dusting powder.

ELIZABETH ARDEN

Elizabeth Arden has introduced a new perfume sequence and make-up called "Mille Fleurs." Mille Fleurs perfume comes in round globe bottles, crystal or golden, stoppered with miniature paperweights.

JEAN NATÉ

Jean Naté is introducing "Hand Tone," a preparation which helps to soften, whiten and clean the hands. Hand Tone carries the same, delightful fragrance which characterizes Jean Naté's Friction Lotion.

KATHLEEN MARY QUINLAN

One important group adaptation to the new Kathleen Mary Quinlan pattern of packaging is that of the Mist of Dawn face powder box and the Liquid Finishing cream label and cartons. The powder box carries the Quinlan crest and revised lettering on a pink satin background, with magenta piping around the edges.

SCHNEFEL BROS. CORP.

Schnefel Bros. Corp. announce "Quickseal," a clear topcoat to be applied over nail polish. Quickseal helps speed drying of nail enamel and gives it added lustre.

DAGGETT & RAMSDELL

Daggett & Ramsdell presents its Golden cleansing cream in a dainty and feminine new dress. The familiar beige and brown package is replaced by the "D&R" embossed jar labeled and capped in luscious pink.

DORALDINA

Doraldina has restyled its entire line which is simple in design, yet entirely feminine. The background of the packages is blush-ivory with fine white diagonal stripes.

YARDLEY

Yardley has added make-up base to its "Bond Street" series of Beauty preparations. Make-up base is styled in the Bond Street tradition—red, gold, blue, and ivory—and is perfumed with the well-known Bond Street note.

ALLEN B. WRISLEY

Allen B. Wrisley is introducing special packages for spring and summer selling, old fashion bouquet bath bubbles, dusting powder, cologne and soap.

HARRIET HUBBARD AYER

Nerine is a new Harriet Hubbard Ayer lipstick shade, inspired by the flower of that name. Nerine is a pure, brilliant red. With the introduction of this brilliant red shade, a new Ayer lipstick case is also presented. The petal design is in delicate tones of pink and blue. It is made of plastic which makes it light and practical.

FERD. MULHENS, INC.

Ferd. Mulhens, Inc. has a new "4711" Lavender Mignon smelling salts. This timely package is offered in plain bottles and also in a leather case.

RICHARD HUDNUT

DAGGETT & RAMSDELL

FERD. MULHENS, INC.

PLASKON
Covers a Big Field!
Plaskon Molded Color can meet the closure problems of a wide variety of packages, while enhancing product appeal and aiding production. Plaskon is extremely beautiful, chemically inert, odorless, tasteless, resistant to solvents. We offer an advisory service based on long experience in the drug and cosmetic industry.
Plaskon Company, Incorporated, 2110 Sylvan Avenue, Toledo, Ohio.
PLASKON
MOLDED COLOR

SHULTON

Shulton presents two new men's packages in Early American Old Spice. One wood veneered chest, decorated with clipper ships, contains a tube of shave cream and a pottery bottle of after-shave lotion, as well as a slotted container for razor blades. The other new chest has been designed for the electric shaver addict and holds after-shave lotion, special men's talc, and cologne.

SHULTON

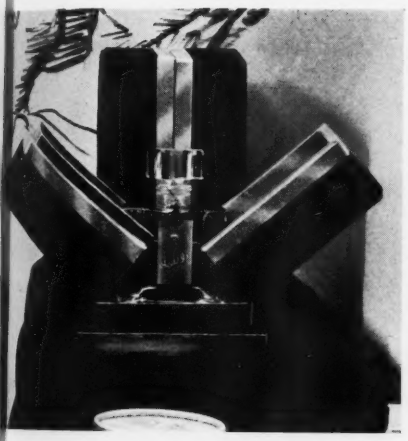
DELETTREZ

"Wildflower" is the name of Delettrez' new line consisting of cologne, cleansing cream, night cream, face powder, grainy wash, and lipstick. The packages are decorated in a gay, feminine manner. The lipstick case is made entirely of paper and contains an oversize lipstick to give it leverage.

DELETTREZ

GAMBOA PERFUMES

Gamboa Perfumes presents a new line called "Should I?", which includes perfume in a one ounce size, cologne in three sixes, bath oil, dusting powder, and talcum, all attractively packaged in black and gold.



GAMBOA

PARFUMS CHARBERT

Charbert presents a daily triple, shaving lotion, hair lotion and talcum. Three stirrup-shaped bottles with horses' heads blown in glass, stand in a race track scene complete with grandstand, cheering throngs, starting post, all gaily colored in green and white.

CHARBERT

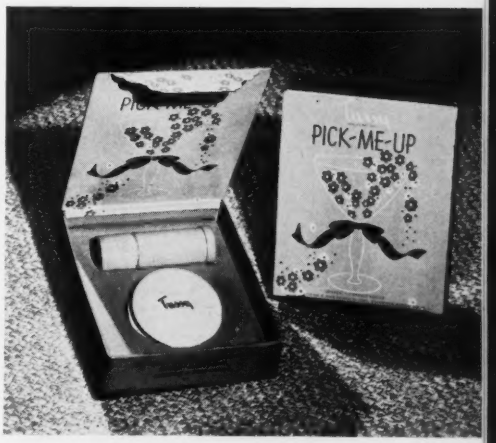
GEORGE W. LUFT

An entirely new item in the Tangee line is the new deluxe creme rouge especially created for sale at $1 retail. The package is molded of transparent plastic, making it light and attractive.

GEORGE W. LUFT

TUSSY

Cosmetiques Tussy will feature the new "Pick-Me-Up" package this spring and summer. Pick-me-up is a matched make-up set of lipstick and compact rouge in a specially designed gay-as-spring package. Lipstick and rouge are each done in new pink plastic cases.



TUSSY

BOUQUET ST #722

Another Ideal Perfume For Your New Suntan Line

Suntan preparations must have "odor" appeal as well as sunscreen effectiveness. The odor appeal problem is completely solved by the adoption of this delightfully light, refreshing, modern perfume. . . Priced at $6.00 per pound.

Other suitable odors also available.
Samples available to interested manufacturers.

ORBIS

PRODUCTS CORPORATION

215 PEARL STREET, NEW YORK · FACTORY & LABORATORY, NEWARK, N.J.

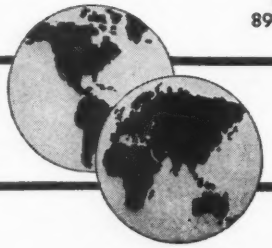
CHICAGO
831 N. Wabash Ave.

PHILADELPHIA
610 Brown Bldg.

BOSTON
89 Broad Street

MEMPHIS, TENN.
1620 Carr Ave.

Water Soluble Gums	Waxes	Cosmetic Raw Material	Fruit Flavors
Thymol	Stearic Acid	Oleo Resins	Food Colors
Aromatics	Essential Oils	Perfume Bases	Quince Seed
Rice Starch	Zinc Oxide French	Olive Oil	Irish Moss



NEWS

Associations

A.D.M.A. Meeting

Due to the fact that the German diplomats are still housed at the Greenbrier Hotel, White Sulphur Springs, and no definite date has been given for their removal, The A. D. M. A. meeting has been transferred to the French Lick Springs Hotel, French Lick, Ind.

The thirty-first annual meeting of the American Drug Manufacturers' Association will be held May 4 to 7. The scientific section will hold its meeting at 9 A. M. on the morning of the 4th. At the meeting of the section, of which D. M. Copley is chairman, reports will be made by the subcommittee chairmen. The Subcommittee on Glandular Products and Ferments, under the chairmanship of Dr. Frederic Fenger, has devoted itself to the problem of a suitable assay method and standards for extract of ox bile. Preliminary investigations along these lines were described at the annual meeting last year.

J. B. Fullerton, chairman of the Subcommittee on Inorganic Chemicals and Medicinals, will report on two problems undertaken by his subcommittee—the estimation of hypophosphorous acid in diluted hydriodic acid, U.S.P., and the assay of potassium chlorate, as a chemical and in tablets.

The Subcommittee on Vitamins, under the chairmanship of Dr. Arthur D. Holmes, has made a series of investigations during the year and will report upon 1. Data on the microbiological assay of riboflavin; 2. Data on the melting range of nicotinamide; and 3. Data on analytical methods and specifications for pyridoxine.

The Subcommittee on Pharmacological Assays, of which Dr. Marvin R. Thompson is chairman, has continued its collaborative studies with the U.S.P. Revision Committee on digitalis assay methods. These studies have furnished evidence which has resulted in the abandonment of the frog method, and the inclusion of a cat method in the U.S.P. XII.

The Biological Section, of which W. G. Malcolm is chairman, will also hold its meeting at 9 A. M. on the first day of the convention. The Legislative Committee will have its meeting at 10 and the Pharmaceutical and Crude Drug Sections will meet in the afternoon.

JOHN G. SEARLE

The first general session of the Association will be held May 5 at 9 A. M. The annual dinner will be Wednesday, May 6, and the speaker will be Dr. Morris Fishbein. His subject will be "American Medicine Meets the Challenge." In addition to his duties as editor of the "Journal of the American Medical Association," Dr. Fishbein holds the following positions: Chairman, Committee on Information, Division of Medical Sciences, National Research Council; Chairman, Committee on Information, Medical Division, Office of Scientific Research and Development; Chairman, Committee on Information, and Consultant to Procurement and Assignment Service for Physicians, Dentists and Veterinarians in Office of Defense, Health and Welfare Services; Member, Committee on Medical Preparedness of the American Medical Association.

The golf tournament will be played Tuesday afternoon, May 5, and the tennis tournament has been set for Wednesday afternoon, May 6.

J. P. Remensnyder of Heyden Chemical Corp. is chairman of the entertainment committee and S. B. Penick, Jr., of S. B. Penick & Co., is vice-chairman. Mr. Remensnyder has announced the following subcommittees: Publicity, G. S. Furman, Merck & Co., Inc.; Transportation, R. B. Magnus, Magnus, Mabee & Reynard, Inc.; Evening Activities, S. B. Penick, Jr., chairman, and W. D. Barry, Mallinckrodt Chemical Works; Golf V. E. Williams, chairman, Monsanto Chemical Co., H. J. Dietel, Merck & Co., Inc., and J. A. Huisking, Fritzsche Brothers, Inc.; Tennis, G. S. Furman, chairman, and R. B. Magnus; Annual Dinner, M. N. DeNoyelles, chairman, Chas. Pfizer & Co., Inc., and F. J. McDonough, the New York Quinine & Chemical Works; and Ladies' Activities, A. A. Wasserscheid, chairman, Mallinckrodt Chemical Works, and George Simon, Heyden Chemical Corp.

Ready and Willing!

The list of pharmaceutical intermediates on the right has resulted from the fact that Edwal has not only been ready with the equipment and the experienced personnel necessary to make special chemicals to order, but has also been willing to undertake the research needed to prepare special chemicals.

Many materials which are not listed here have been prepared exclusively for individual customers. Because of the confidential nature of such assignments, Edwal, of course, does not reveal the nature of the chemicals thus prepared. Why not take advantage of Edwal's experience in solving your raw material problems?

Acetylacetone
Acetylaminoazotoluene
p-Acetylaminophenol
Acetyl Propionyl
Allantoin
Alloxan
Alloxantin
Allyl Alcohol
Allyl Amine
Allyl Bromide
Allyl Chloride
Allyl Thiourea
Aluminum isopropylate
Aluminum ter-Butoxide
Aminoacetal
Aminobenzthiazole
2-Aminothiazole
p-Aminodiphenylamine
Ammonium Thiosulfate
Amyl Nitrite
Anhydromethylenecitric Acid
Benzalazine
Benzaldehyde Semicarbazone
Bismuth Sodium Iodide
n-Butyl Bromide
Cetyl Bromide
Cetyl Iodide
Cetyl Pyridinium Halides
Decamethylene Glycol
Decamethylene Bromide
Diacetylaminoazotoluol
Diallyl Disulfide
Di Allyl Sulfide
Diethyloxybenzene
Dimethylaminoazobenzene
Ethyl Iodide, C.P.
Ethyl sec-Octyl Malonate
Helmitol
Hydroxydimethylbutyrolactone
Magnesium Thiosulfate
p-Methoxy Propiophenone
alpha Methylallylamine
Methyl Iodide
Nitranilic Acid
Nitroso Beta Naphthol
sec-Octylbromide
Oil of Mustard, Artificial
Parabanic Acid
o-Phenylenediamine
Phenyl isothiocyanate
Phenylmercuricnaphthenate
Phenyl Mercuric Acetate, CP
Phenyl Mercuric Hydroxide
Phenyl Mercuric Nitrate, CP
Phenyl Semicarbazide
Phloroglucinol
Phthalonic Acid
Propionyl Acetone
Quinine Bismuth Iodide
Semicarbazide Hydrochloride, Tech.
Semicarbazide Hydrochloride, Pure
Sodium Cyanate, 95%
Uric Acid, Purified

MANUFACTURING DIVISION

The EDWAL *Laboratories, Inc.*

732 FEDERAL STREET
CHICAGO, ILL.

Retailers Indicted

The National Association of Retail Druggists, the New Jersey Pharmaceutical Association, thirteen local and county pharmaceutical associations in New Jersey and fifteen of their officers and agents were indicted by a Federal grand jury in Newark, March 26. They were charged with conspiracy to violate the Sherman Anti-Trust Act.

The conspiracy, said the government, involved an arrangement to fix retailers' margins of products on drug store items by fixing the retail prices and also the prices at which the retailers bought from wholesalers. The items referred to were described as patent and proprietary medicines, cosmetics, toiletries, sundries, simple home remedies and other articles ordinarily sold in drug stores.

The indictment stated further that the conspiracy was not formed "with an intent to carry out" the Miller-Tydings Amendment to the Sherman Act for the New Jersey Fair Trade law, but was formed to fix prices "under guise of compliance" with these laws. The indictment was not an attack upon the federal or state statutes but was directed against the "misuse" of the acts so as to constitute a violation of the anti-trust barriers.

Named in the indictment were: National Association of Retail Druggists of Chicago; New Jersey Pharmaceutical Association of Trenton; Conferences of Pharmaceutical Secretaries of Trenton; the following county pharmaceutical associations: Bergen, Camden, Essex, Hudson, Passiac, Union, Mercer, Middlesex, Morris and Somerset; Atlantic County Drug Club and the Elizabeth and Hoboken Pharmaceutical Associations.

The individuals named were:

John W. Dargavel, executive secretary and general manager of the National Association Retail Druggists, Chicago.

David I. Cohen of Jersey City, former delegate to N. A. R. D., former president and member of the board of trustees of the New Jersey Pharmaceutical Association, former president of the Hudson County Association.

John J. Debus of Jersey City, former executive officer of the N. J. P. A., former president of the Hudson County Association, member of the N. A. R. D.

Robert P. Fischelis of Trenton, first vice-president and member of the board of the N. J. P. A., and editor of The New Jersey Journal of Pharmacy.

Charles R. Garrabrant of Passaic, former president, former first vice-president and former member of the board of the N. J. P. A.

A. R. Granito of Hackensack, former vice-president of the N. A. R. D., former president and former member of the board of the N. J. P. A.

Arthur P. Grosman of Grantwood, vice-president of the N. J. P. A., and member of the Fair Trade Committee.

Henry D. Kehr of Trenton, former member of the committee on fair trade legislation of the N. A. R. D., former member of the board of N. J. P. A.

Emil P. Martini of Hackensack, former first vice-president and former member of the board of the N. J. P. A.

John J. McLaughlin of Paterson, former president and former member of the board of the N. J. P. A., former president of the Passaic County Association.

Harry B. Reibel of Elizabeth, former president and member of the board of the N. J. P. A.

George A. Sacher of Irvington, member of the N. A. R. D., former president of the Essex County Association.

Silvio Sappia of Cliffside, member of the N. A. R. D., former president of the Bergen County Association.

Oscar Singer of Newark, former delegate of the N. A. R. D., former vice-president and member of the board of the N. J. P. A.

Jeannette B. Osofsky of Elizabeth, former member of the fair trade committee of the M. J. P. A.

Matthiessen on T. G. A. Board

At a meeting of the executive board of the Toilet Goods' Association, E. P. Matthiessen, president of the Nyal Co., Detroit, was elected a member of the board to fill the vacancy caused by the resignation of George A. Wrisley, who is now chief of the Soap and Glycerine branch of the War Productions Board.

Mr. Matthiessen was only recently elected president of the Nyal Co., after serving successively as manager and vice-president.

T.G.A. Appoints Convention Committee

L. R. Root, chairman of the convention committee of the Toilet Goods' Association, has appointed the following members of the industry to serve with him on this committee: A. C. Burgund, Carr-Lowrey Glass Co.; Charles Fischbeck, P. R. Dreyer, Inc.; P. E. Haebler, Van Ameringen-Haebler, Inc.; W. E. Klaas, Brass Goods Mfg. Co.; M. Lemmermeyer, Aromatic Products, Inc.; M. F. Martin, U. S. Industrial Chemicals, Inc.; W. P. Murray, Continental Can Co.; Karl Voss, Karl Voss Corp.; J. Blaine Walker, Hazel-Atlas Glass Co., Inc.

The convention will be held at the Hotel Waldorf-Astoria, New York, on June 15, 16 and 17.

Charley Heads Chi. Assn.

The Chicago Drug and Chemical Association held its annual election of officers at the luncheon meeting at the Palmer House, March 26. The new officers elected to serve for a year, beginning April 1, are: president, M. F. Charley, Standard Pharmacal Co.; vice-president, Joseph P. Sullivan, E. I. DuPont de Nemours & Co., Grasselli Chemicals Dept.; secretary, Gerald F. Pauley, Monsanto Chemical Co.; and treasurer, F. Dean Hildebrandt, Prior Chemical Corp.

M. F. CHARLEY

Directors elected to serve for a period of two years are: Joseph A. Gauer, Fritzsche Brothers, Inc.; Walter H. Jelly, Walter H. Jelly & Co.; T. W. Golden, French Lick Springs Hotel Co.; and J. J. Walsh, Royal Mfg. Co. of Duquesne.

McIntyre Elected by A.Ph.A.

Joseph D. McIntyre, president of Dr. D. Jayne & Son, Inc., Philadelphia, has been elected secretary and treasurer of the Philadelphia branch of the American Pharmaceutical Association.

Mr. McIntyre is a graduate chemist from George Washington University and is now working for a B.S. in Pharmacy at Temple University School of Pharmacy. Before joining Dr. D. Jayne & Son, he was connected with the U. S. Department of Agriculture and the Treasury Department in Washington.

N.W.D.A. Meeting

The National Wholesale Druggists' Association held its mid-year meeting at the Palmer House, Chicago, April 16 and 17. An executive session of wholesalers was devoted to a "Discussion of War Time Problems," with attention to Priorities Regulation No. 1; automobile, tire and gasoline shortages; price ceilings; salesmen; curtailment of deliveries; women as replacements for men; and changing sales territories. I. H. Bander was chairman of the meeting.

John Albright of Washington spoke on using census data during war times; H. J. Ostlund gave a preliminary report on 1941 operations; Dr. H. C. Nolen and J. L. Freeman presented some ideas on marketing under war conditions; and Harold Harper, counsel for the association, reported on the recent N.W.D.A. indictment.

In the afternoon of the first day a joint session for wholesalers and manufacturers was held. Joseph B. Phillips, managing editor of "This Week Magazine" spoke on the international situation; George W. Kauffman, Dr. Donald M. Hobart, Dr. Herman C. Nolen and John Albright gave highlights on "Sales Management Guide," Volume II and Dr. F. R. Cawl discussed the farmer as a customer during the war.

The second feature of the afternoon meeting was an address by Sir Kenneth Lee, United States Representative, Industrial and Export Council, British Board of Trade. He spoke on the "Impact of War on the British Drug Trade."

M.M.&R. Dinner to D. S. C.

On March 7, at the Hotel Astor, New York, for the third successive year, Magnus, Mabee & Reynard entertained the Druggists' Supply Corp. at dinner. Charles A. Loring, of Gilman Brothers, Inc., Boston, president of Druggists' Supply Corp., spoke as did R. D. Keim, of E. R. Squibb & Sons, and Percy C. Magnus, president of Magnus, Mabee & Reynard.

BIMS Golf Outings

Dates for the summer golf tournaments have been announced by the BIMS. The first meeting of the season will be held May 14 at the Baltusrol Golf Club, Springfield, N. J. The second will be at Winged Foot Golf Club, Mamaroneck, N. Y., June 23; the third at Plandome Golf Club, Plandome, L. I., N. Y., July 28; and the final meet at the Ridgewood Country Club, Ridgewood, N. J., September 22.

Ole Salthe Joins New Nutrition Foundation

Ole Salthe, former consultant for the Federal Food and Drug Administration, has been appointed executive secretary of the Nutrition Foundation, Inc. The Nutrition Foundation, Inc., was organized by sixteen food manufacturers to study nutrition for the improvement of public health and maintains headquarters in the Chrysler Building, New York. George A. Sloan is president of the Foundation.

A scientific advisory committee has been appointed consisting of: Dr. F. G. Boudreau, director, Milbank Memorial Fund; D. C. A. Elvehjem, University of Wisconsin; Dr. Icie M. Hoobler, Children's Fund of Michigan; Dr. P. E. Howe, Surgeon General's office, United States Army; Dr. E. V. McCallum, the Johns' Hopkins University; Dr. L. A. Maybard, Cornell University; Dr. J. R. Murlin, University of Rochester; Dr. Roy C. Newton, Swift & Co.; Dr. Lydia J. Roberts, University of Chicago; Dr. W. C. Rose, University of Illinois; Dr. W. H. Sebrell, United States Public Health Service; Dr. Henry C. Sherman, Columbia University; Dr. F. F. Tisdall, University of Toronto and Dr. R. R. Williams, Bell Telephone Laboratories.

Members of the food industries advisory committee are: Dr. Roger Adams, University of Illinois, representing the Coca Cola Company; H. A. Barnby, Owens Illinois Glass Company; Dr. Frederick C. Blanck, H. J. Heinz Company; Dr. Laurence V. Burton, "Food Industries;" Dr. Charles N. Frey, Standard Brands, Inc.; Frank L. Gunderson, National Research Council; Dr. W. H. Harrison, Continental Can Company; Mr. Norman F. Kennedy, Corn Industries Research Foundation.

Also Dr. Edward F. Kohman, Campbell Soup Company; Donald Maveety, National Biscuit Company; Dr. Robert W. Pilcher, American Can Company; Dr. G. L. Poland, United Fruit Company; Alan C. Richardson and James McConkie, California Packing Company; Dr. E. H. Robinson, Swift & Co.; Dr. James A. Tobey, American Institute of Baking and Lewis W. Waters, General Food Corporation.

THIRD ANNUAL DINNER TENDERED THE DRUGGISTS SUPPLY CORPORATION BY MAGNUS, MABEE & REYNARD, MARCH 7

U.S.I. ALCOHOL NEWS

April ★ A Monthly Review of Technical Developments for Chemists and Executives ★ 1942

New Formula 40-A Is Authorized by Alcohol Tax Unit

Modification also Announced For S.D. Alcohol Formula 27-B

Further relief for the users of S.D. Alcohol during the current shortage of certain denaturants is provided by recent rulings issued by the Alcohol Tax Unit.

In view of the difficulty of obtaining S.D. 40, a new formula, S.D. 40-A, has been authorized. Composition of this formula calls for the addition of the following to every 100 gallons of ethyl alcohol of not less than 190 proof:

5 pounds sucrose octa-acetate and
⅛ gallon denaturing grade tertiary butyl alcohol.

Sucrose octa-acetate is an organic acetylation product, commercially available as a cream-colored, non-hydroscopic powder, with an intensely bitter taste.

Because of the shortage of Oil of Lavender

Tincture of green soap, frequently recommended by physicians for persons allergic to ordinary soaps, is one of the major uses of S.D. 27-B.

Flowers, a modification has been authorized in the composition of S.D. 27-B. Modified composition calls for the addition of the following to every 100 gallons of ethyl alcohol of not less than 190 proof:

1 gallon Oil Lavender Flowers U.S.P. *or*
1 gallon Oil Cedar Leaf U.S.P., and
100 pounds soft soap U.S.P.

This supplements the announcement in the March issue of U.S.I. Alcohol News that permittees might substitute Oil of Cedar Leaf for Oil of Lavender Flowers by filing Forms 1479-A.

Oil of Cedar Leaf is a colorless or yellow liquid, having the characteristic odor of Arbor Vitae.

U.S.I. Products Find Many Uses in Manufacture of Pharmaceuticals

Amyl Alcohol, Ethyl Acetoacetate, Ethyl Ethanedioate, Other Chemicals Employed in Many Essential Applications

With the nation's wartime effort resulting in an increased demand for many types of pharmaceuticals, a number of the chemicals produced by U.S.I. are taking on greater importance in pharmaceutical manufacture.

Amyl alcohol and fusel oil, refined, for example, are used as sources of the amyl group in the manufacture of such products as amyl nitrite and amyl barbital, as well as in compounding and dispensing.

Ethyl acetoacetate is employed as an intermediate in the manufacture of antipyrine and amidopyrine. Other potential applications of this chemical in organic synthesis are suggested by two of its properties: the reactivity of the hydrogen on the carbon adjacent to the $—COOC_2H_5$ group; and the tendency of addition products to close into ring structures of the most varied types.

Ethyl ethanedioate (ethyl oxalate) is used in the manufacture of phenobarbital. **Ethyl carbonate** is also used in the manufacture of this pharmaceutical, where, as the first step, it is reacted with benzyl cyanide to give ethyl alpha-cyano-phenylacetate. Ethyl carbonate also reacts with ethyl acetate to give ethyl malonate, starting point in the manufacture of luminal, barbital, and veronal.

Urethan has a number of interesting applications in pharmaceuticals. It is used in the treatment of insomnia, eclampsia, nervous excitement, tetanus, convulsions and spasmodic conditions, and whooping cough, and as an antidote in strychnine, resorcinol, and picrotoxin poisoning.

Ethyl formate is employed in liquid form as a remedy for diarrhea, in vapor form as an inhalant for respiratory affections, and externally as a rubefacient. A further application is its reaction with ethyl beta-ethoxypropionate to give ethyl alpha-formyl-beta-ethoxypropionate, an intermediate in the synthesis of Vitamin B_1.

Ethyl acetate is used in the synthesis of pharmaceuticals and in purification. Ethyl acetate is produced by U.S.I. in four grades: 85-88%, 95-98%, 99%, and U.S.P.

Ethyl sodium oxalacetate has a wide range of utility as an intermediate in the synthesis of pharmaceuticals. A special advantage of this chemical is its high stability, compared with oxalacetic ester, which is relatively unstable. Ethyl sodium oxalacetate is entirely suitable for most applications in which oxalacetic ester might be employed.

Other U.S.I. products employed in pharmaceuticals include **collodion,** U.S.P. and U.S.P. Flexible; and **acetone,** used in making chloroform and iodoform.

TECHNICAL DEVELOPMENTS

Further information on these items may be obtained by writing to U.S.I.

Oil of hops, formerly produced only in Europe, is now reported available from a domestic source. The oil is described as having a distinctive fragrance. **(No. 560a)**

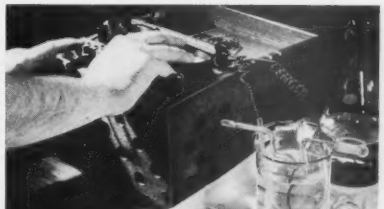
A new sweetening agent can be used in conjunction with saccharin with a resulting increase in sweetness and saving in cost, it has been announced. Material is a white crystalline powder, soluble to the extent of 1:800 in cold water, 1:50 in boiling water, 1:25 in alcohol, and can be used in dentifrices, pharmaceuticals, and flavors, according to the maker. **(No. 561a)**

A new substitute for gum tragacanth ribbon is said to give the same viscosity and body in water. Maker says that it is a pure white, edible protein powder, which can be used in pharmaceuticals, dentifrices, and cosmetics. **(No. 562a)**

A decalcomania process permits the application of multicolored designs on glass containers, it is reported. Design is said to be fired directly into the glass, and to permit use of any number of colors over the same area in order to obtain blended effects. **(No. 563a)**

An apple blossom note characterizes a new synthetic, which the maker describes as suitable for use in perfumes, creams, powders, and other cosmetic products. **(No. 564a)**

A new metal alloy for use in manufacturing collapsible tubes is said to be suitable for packaging of tooth paste, shaving cream, cosmetics, and other products of this nature. Supply of the alloy is currently limited, but maker hopes to expand production in the future. **(No. 565a)**



Rigid care is exercised by U.S.I. to maintain the high degree of purity necessary in chemicals used for pharmaceuticals. (See article at right.) This conductivity test provides valuable information on purity of chemicals.

U.S.I. INDUSTRIAL CHEMICALS, INC.

60 EAST 42ND STREET, NEW YORK

CHEMICALS · INDUSTRIAL · ANTI- · SOLVENTS · ALCOHOLS · FREEZE · USI SERVICE TO INDUSTRY

BRANCHES IN ALL PRINCIPAL CITIES

April ★ U.S.I. ALCOHOL NEWS ★ 1942

Sulfanilamide Overdoses Counteracted by Urethan

PRINCETON, N. J. — Recent experiments here indicate that urethan exerts anti-sulfanilamide effects on luminous bacteria, and suggest the possibility that urethan may offer a means for counteracting overdoses of sulfanilamide.

The experiments may offer an explanation of the previously discovered effect of urethan in preventing death from sulfonamide overdosage of animals. Both urethan and sulfanilamide were found to act in the manner of narcotics on luminous bacteria, stimulating growth and luminescence in low concentrations, and inhibiting them in high concentrations. Since it is possible to use the stimulatory effect of one narcotic to offset the inhibitory effects of another, it is believed that in the same way urethan can be employed to offset the effects of sulfanilamide.

Test Pomades for Soldiers On Duty in Sub-Zero Areas

WASHINGTON, D. C. — Possibility that pomades may acquire a new importance in the nation's wartime efforts is indicated by experiments being conducted here.

Purpose of the pomades is to prevent chapping of lips and face in the case of soldiers on duty in extremely cold climates. Studies of different materials and types of containers are now being conducted, but no final decision has been reached.

If the pomades are adopted for military use, they will probably be uncolored, and may be packaged in metal or plastic containers very similar to those used for lipstick.

Benzyl Benzoate Helpful In Treatment of Scabies

LONDON, England — Increasing interest is being manifested here in the usefulness of benzyl benzoate in the treatment of scabies. Control of this disease is particularly important in wartime, because of the danger of its occurrence among soldiers.

A method of treatment that has been described as effective is to apply a paint made up as follows:

	Parts by weight
Benzyl benzoate	100
Tincture of green soap	130
Alcohol	60
Distilled water	10

Avocado Oil Suggested As Base for Cosmetics

LOS ANGELES, Calif. — With current shortages stimulating the search for new materials, American cosmetic producers are displaying new interest in avocado oil as a base for cosmetic manufacture.

This application of avocado oil is not new, since the oil was introduced in England for cosmetic purposes in 1934. In the past, however, the relatively high price of avocado oil was a limiting factor in its development. Now, with imported oils more difficult to obtain, and with their cost rising to higher levels, there appear to be new fields for use of the avocado oil.

Alcohol Quota Can Be Used for Any Toiletry

NEW YORK, N. Y. — The alcohol quota to which manufacturers of toiletries are entitled may be applied to the production of any type of cosmetic product which they manufacture, it has been announced here on the basis of a ruling received from the WPB.

Thus, if a manufacturer is entitled to a given quantity of alcohol on the basis of 70% of the amounts used for face lotions last year, the quantity may be employed if desired in the production of mouth washes, shampoos, or other products.

This ruling is expected to prove helpful to manufacturers who may be considering simplifying their lines in order to make most effective use of material supplies available under present conditions.

Iron Salts Employed in Powerful New Germicide

ROSEVILLE, Calif.—A mixture of ferrous chloride and ferric chloride in the proportions of 126 grams to 322 displays surprisingly strong germicidal powers not possessed by either chemical alone.

This novel effect is described by an inventor here, who has obtained a patent on the mixture. The germicide, it is claimed, quickly kills highly resistant organisms, such as those of typhus and staphylococcus, even when used in fairly dilute solutions. At the same time, the germicide is harmless to human tissue.

For the treatment of wounds, the germicide may be applied dry or in the form of an alcoholic solution.

CHEMICAL BRIEFS

This column lists a few of the many applications of U.S.I. products. Further information on these applications may be obtained by writing to U.S.I.

Ethyl chloroformate has been used chiefly as an intermediate in the production of ethyl carbonate and of flotation agents. Its reactivity suggests many other uses. It reacts with bromobenzene and sodium amalgam to yield ethyl benzoate, used in the manufacture of perfumes. Ethyl benzoate can also be produced by reacting ethyl chloroformate with phenyl magnesium bromide; in this case triphenylcarbinol is also formed. (C1)

U S I

Ethyl acetate 99%, because of its high purity, is employed in the manufacture of food flavorings. It is used also in nail enamel removers. Currently, production of ethyl acetate 99% is required chiefly for the manufacture of smokeless powder. (C2)

U S I

Ethyl benzoylacetate is decomposed by the action of hot sulfuric acid, yielding acetophenone, used in medicine and in the manufacture of perfumes and pharmaceuticals. (C3)

U S I

Amyl acetate, High Test, has found favor in the manufacture of flavorings and perfumes, because of its fruity aromatic odor and uniformly high quality. It is also employed as a nitrocellulose solvent in high-quality lacquers. (C4)

U S I

Ethylene has proved to be an effective agent for ripening, softening, and coloring fruits and vegetables. Even in minute concentrations, it speeds up the ripening metabolism. The changes brought about by the action of ethylene on fruits and vegetables appear to be only those that would occur naturally over a longer period of time. (C5)

U S I

Ethyl formate is an excellent larvicide and fumigant, and is especially applicable to the treating of such products as tobacco, dried fruits, cereals, etc., which may be subject to infestation. A special advantage of ethyl formate is that it evaporates completely and leaves no residual odor. Hence it is suitable for use on the packing line for fumigating individual packages. (C6)

U.S.I INDUSTRIAL CHEMICALS, INC.

60 EAST 42ND STREET, NEW YORK — CHEMICALS INDUSTRIAL ANTI- USI SERVICE TO INDUSTRY SOLVENTS ALCOHOLS FREEZE — BRANCHES IN ALL PRINCIPAL CITIES

ALCOHOLS
Amyl Alcohol
Butanol (Normal Butyl Alcohol)
Fusel Oil—Refined

Ethanol (Ethyl Alcohol)
Specially Denatured—All regular and anhydrous formulas
Completely Denatured—all regular and anhydrous formulas
Pure—190 proof, C.P. 96%, Absolute
U.S.I. Denatured Alcohol
Anti-freeze
*Super Pyro Anti-freeze
*Solox Proprietary Solvent
*Solox D-1 De-icing Fluid

***ANSOLS**
Ansol M
Ansol PR

ACETIC ESTERS
Amyl Acetate
Butyl Acetate
Ethyl Acetate

OXALIC ESTERS
Butyl Oxalate
Ethyl Oxalate

PHTHALIC ESTERS
Amyl Phthalate
Butyl Phthalate
Ethyl Phthalate

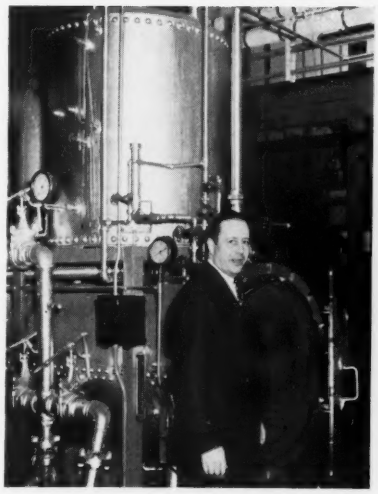
OTHER ESTERS
*Diatol
Ethyl Carbonate
Ethyl Chloroformate
Ethyl Formate

INTERMEDIATES
Acetoacetanilide
Acetoacet-ortho-anisidide
Acetoacet-ortho-chloranilide
Acetoacet-ortho-toluidide
Acetoacet-para-chloranilide
Ethyl Acetoacetate
Ethyl Benzoylacetate
Ethyl Sodium Oxalacetate

ETHERS
Ethyl Ether
Ethyl Ether Absolute—A.C.S.

OTHER PRODUCTS
Acetone
Collodions
*Curbay B-G
*Curbay Binders
*Curbay X (Powder)
Ethylene
Ethylene Glycol
Nitrocellulose Solutions
Potash, Agricultural
Urethan
*Vacatone

*Registered Trade Mark



Above is shown the new research and engineering building of the Plaskon Company, Toledo. At the left is shown James L. Rodgers, president of Plaskon, in front of an experimental autoclave in the new building.

Companies

New Plaskon Building

The new research and engineering building of the Plaskon Co. was formally dedicated in Toledo, February 27. The laboratory, which is under the direction of Dr. A. M. Howald, devotes 42.5 per cent. of its space to engineering and pilot plant. Separate laboratories open directly off the central engineering space and special accommodations have been built for engineering on customer problems. There is a department for pure research and the technical library houses many thousand volumes. Twenty-five technologists will staff it.

Carlisle Resigns from Jamieson

Gerald Carlisle has resigned as treasurer of C. E. Jamieson & Co., Detroit, and H. J. von Eisenhauer has succeeded him as treasurer. Mr. von Eisenhauer has been with the company since 1934, and has served as assistant-treasurer since 1935. Arthur C. Reppenhagen, who was formerly connected with Lawrence Scudder & Co., public accountants, succeeds him as assistant-treasurer.

Schoell Buys Heinrich

Arthur Schoell, owner of Schoell Laboratory, which has been engaged in the manufacture of pharmaceutical and chemical specialties for five years, has announced that Schoell Laboratory has purchased the plant and business of Heinrich Chemical Co. of California. The Heinrich plant is located at 1905 Adeline St., in Oakland in a two story building with approximately 20,000 square feet of floor space, and greatly increases the facilities of Schoell Laboratory.

Venezuela Agent

Jose R. Delucca, manufacturers' representative, Caracas, Venezuela, is interested in securing the representation of a manufacturer of a cosmetic line. He would like to have all products shipped to him in bulk for packaging or would be interested in establishing a company for the manufacture of cosmetics in Venezuela. His address is Ibarras A Maturin 22-1, Caracas, Venezuela.

Mexican Agent

American Trading Co., Av. Juarez No. 30, Mexico D. F., is interested in representing in Mexico companies selling fine and heavy chemicals, pharmaceuticals and drugs. The managers of the company, Jose M. Zubiran and Frank Cardona, arrived in New York early in April to interview manufacturers.

James Joins Commercial Solvents

Robyn M. James has recently joined the bacteriological staff of Commercial Solvents Corporation and is now working at their Research Laboratories in Terre Haute, Indiana. Mr. James received his M. S. degree from the University of Illinois in 1940 and was formerly with a food manufacturer in Illinois.

Named on W. J. Bush Board

R. R. Webb, W. J. Bush & Co., Inc., New York, and Montgomery St. Alphonse, W. J. Bush & Co. (Canada) Ltd., Montreal, have been made members of the board of directors of W. J. Bush & Co., Ltd., London, the parent company.

C. F. Bush and A. J. McIntyre were recently appointed to the board, H. B. Bush was made a managing director and D. E. Arnold, secretary of the company. Dr. P. C. C. Isherwood is chairman and managing director of the London company and president of the New York and Montreal companies.

Carvalho Joins Crown Cork

Leslie R. Carvalho, former president of Owens-Illinois' Closure Service Corp., has joined the Crown Cork Specialty Corp. He will make his headquarters at Decatur, Ill., where he will aid in marketing the "Meritseal" cap which he

LESLIE R. CARVALHO

invented and which the Crown Cork Specialty Corp. is now manufacturing.

Mr. Carvalho has been active in the cap business for thirty-eight years. He started out with the Phoenix Cap Co. in 1904.

Merkel Heads Salvage Committee

Kenneth W. Merkel, of George Lueders & Co., New York, has been appointed chairman of the committee for the essential oil and aromatic chemical industry to cooperate with the New York City Salvage Committee, of which Clarence H. Low is chairman. The com-

LABORATORIES

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This industry, more than most, demands New Ideas . . . and Kolmar is proud of the distinction of being singularly successful in the development and perfection of New and IMPROVED Products.

In this respect Kolmar occupies a unique position in the industry . . . and our reward is the recognition national manufacturers and distributors have accorded us.

To be FIRST is doubly important at a time like this when Beauty plays such an important part in the preservation of our national morale.

Milwaukee · Newark

Representatives:
Mr. M. C. Boyd, Quinby Building, Newark, N. J.
Mr. Douglas Haggerty, 122 E. 42nd St., New York City
Mr. Warren Curry, 3950 Club Drive, Atlanta, Ga.
Mr. Norman Kole, 980 Merchandise Mart, Chicago, Ill.
Mr. R. G. F. Byington, 1260 N. Western Ave., Los Angeles, Cal.
Mr. Richard F. Spicker, 419 West Fifth Street, Cincinnati, Ohio

Luncheon celebrating reception of George J. Waegelin into the Lueders' 25 Year Club. Mr. Waegelin is seated third from the left.

mittee headed by Mr. Merkel will circularize the industry with information and instructions as to what the members of the industry can do to cooperate in the "Salvage for Victory" drive. Paper, tin, rags, rubber, and other strategic materials that might otherwise be wasted are to be saved and turned over to the war effort.

George Lueders & Co. have appointed a man in every department of their offices, laboratories, and plant to be responsible for full cooperation with the drive.

Penick to Cultivate Belladonna

S. B. Penick & Co. has completed plans for cultivating in this country this year many hundred acres of belladonna in an effort to relieve the shortage caused by the war.

During the first World War a small acreage of belladonna was grown in the Unites States but very few of the growers were successful because the plant is susceptible to various diseases and fungi in addition to the even greater dangers of destruction by insects and poor weather conditions. The Penick Co. has established this belladonna program, the most ambitious cultivation program of its kind ever undertaken in America, with the approval of the U. S. Department of Agriculture and other interested governmental departments. Suitable acreages have been selected in several states and it is believed that, under the direction of W. W. Bell of the Penick organization, it will have a very good chance of meeting with success.

Waegelin in Lueders 25 Year Club

George J. Waegelin, secretary of George Lueders & Co., became a member of the company's Quarter of a Century Club on March 26. Mr. Waegelin becomes the club's thirty-first member. A luncheon was given in his honor and he was presented with a wrist watch and a twenty-five-year service pin. The presentation was made at noon in the presence of all of the Lueders' employees.

People

E. H. Snider Joins Army

Ellwood H. Snider, chief chemist, R. J. Strasenburgh Co., Rochester, N. Y., has been on active duty in the Inspection Division of the Office Chief Chemical Warfare Service, since January 31, 1942.

H. J. Sullivan Joins Air Corps

Hubert J. Sullivan, advertising manager of U. S. Bottlers Machinery Co., Chicago, has resigned to join the U. S. Air Corps. He is stationed at the pilot replacement center, San Antonio, Texas, and is a member of Squadron 2, Flight E.

Lee Wiltsee Honored

Lee Wiltsee, vice-president of the Wm. S. Merrell Co., has been elected an active member of the Cincinnati branch of the Veterans' Apothecaries Association. Membership is limited to twenty-five and one of the qualifications is twenty-five years of active service in the drug business. Mr. Wiltsee has been in the drug business forty-eight years, all of which time he has been associated with the Merrell company.

Magnus Talk Rated High

The address on "Synthetic Thinking" delivered by Percy C. Magnus, president of Magnus, Mabee & Reynard, Inc., at the annual dinner of the Association of Manufacturers of Confectionery and Chocolate of New York State, was selected by the magazine, "Vital Speeches," as one of the ten best speeches delivered on current affairs in February.

The talk has been printed in booklet form and copies may be obtained by writing to Mr. Magnus, 16 Desbrosses St., New York.

Burke-Teeter

Claire Lucille Burke was married Saturday, April 18, to John Owen Teeter at Saint Genevieve's Church, Elizabeth, N. J. Mr. Teeter's father is treasurer and a director of Chas. Pfizer & Co., Inc., New York.

Suddard Recuperating

George H. Suddard of A. C. Drury & Co., Inc. is in Florida recuperating from an extended illness.

Financial

Abbott Net Up

Abbott Laboratories report for 1941 a net income of $2,245,811, or $2.90 a share, against an income of $2,239,408, or $2.89 a share, earned in 1940. Taxes for 1941, consisting of local, state and federal, including excess profits tax, amounted to $2.50 per common share, against $1.26 in 1940, an increase of 98 per cent. Net sales of the company increased 29 per cent. during the year.

Anchor-Hocking Net Steady

Anchor Hocking Glass Corp. and subsidiaries report for 1941 a net profit of $1,144,374, after federal and Canadian income and excess profits taxes of $1,171,318, loss of $465,392 in disposal of the Long Island City plant, and provision of $235,000 for contingencies. This is equal to $1.36 a share on the common stock and compares with a profit of $1,224,061, or $1.43 a share earned in 1940 after deducting $482,906 for taxes.

Bourjois Earns More

Bourjois Inc. reports for 1941 a net profit of $713,646, equal, to $1.52 each on 392,225 shares of common stock, excluding 7,775 treasury shares which were sold to an officer of the company in December 1941. A reserve of $160,000

for war contingencies was charged to surplus account. The net profit in 1940 was $720,453, or $1.54 a common share.

Coty Earns Less

Coty Inc. and subsidiaries report for 1941 a net income of $922,881, or 62 cents a share on the common stock, against $1,013,973, or 68 cents earned in 1940. Deductions for taxes in 1941 amounted to $798,167, against $501,261 in 1940.

Crown Cork Earns More

Crown Cork & Seal Co. and wholly-owned domestic subsidiaries report for 1941 a net profit of $2,929,861, equivalent to $4.68 a share on the common stock exclusive of shares in the treasury. This compares with a profit of $2,525,-969, or $3.90 earned in 1940.

Charles E. McManus, president, reports that the company has developed an electrolytic plating process for steel and has been using it successfully for tinplate. The company intends to spend about $2,619,000 on plant construction this year.

Cyanamid Earns More

American Cyanamid Co. reports for 1941 a net income of $6,766,292, equal to $2.42 a share on the common stock, and comparing with a net income of $6,395,666, or $2.44 a share, earned in 1940.

The company deducted $1,000,000 from its 1941 earnings and added it to a contingency reserve "to provide against risks and uncertainties inherent in the conduct of operations under war conditions." A similar provision was made last year. Taxes during 1941 amounted to $13,993,915, against $4,-741,571 in 1940.

Emerson Drug Net Up

Emerson Drug Co. reports for 1941 a net income of $1,237,214, equivalent to $1.59 a share and comparing with a net of $1,186,301, or $1.49 a share earned in 1940. Sales in 1941 were $7,682,371, against $7,186,260.

Heyden Earnings Higher

Heyden Chemical Corp. and subsidiaries report for 1941 a net income of $1,003,647, or $9.04 a share, against $807,858, or $7.86 a share in 1940. Federal income and excess profits taxes rose to $1,329,996 in 1941 from $549,574 in 1940.

Gross sales for 1941 were $9,548,606, against $6,005,704 the year before.

Katz Drug Net Higher

Katz Drug Co. reports for 1941 a net profit of $316,220, equal to 75 cents a share on the common stock and comparing with a net profit of $209,910, or 48 cents a share in 1940.

Merck Earnings Up Sharply

Merck & Co., Inc. and subsidiaries report for 1941 a net income of $3,155,538, equal to $2.88 a share, against $2,463,-683 or $7.28 a share in 1940. Provision for federal and Canadian income and excess profits taxes amounted to $5,-721,479, in 1941 whereas they were $1,742,403 the year before.

Net sales during 1941 were $39,615,-121; in 1940, $23,766,375.

Parke, Davis Earnings Steady

Parke, Davis & Co. and subsidiaries report for 1941 a net profit of $8,006,462. This is equal to $1.64 a share and compares with a profit of $8,187,712, or $1.67 a share, in 1940. Deductions for taxes amounted to $6,500,000 this year against $3,435,000 in 1940.

Plough Earns More

Plough Inc. and subsidiaries report for 1941 a net profit of $279,581, or 93 cents a share against $264,920, or 88 cents a share in 1940.

Scovill Net Up

Scovill Manufacturing Co. and subsidiaries report for 1941 a net profit, after $610,670 loss on marketable and other securities sold or written off and $9,143,588 provision for state, foreign and federal normal and excess profits taxes, of $3,639,589, before $154,473 reserve for inventory and adjustments, equal to $3.47 a share. Profit for 1940 was $3,218,587, or $3.07 a share before $389,533 inventory adjustment.

Sun Ray Net Higher

Sun Ray Drug Co. reports for the year to January 31, 1942 a net profit of $247,145, or $2.27 a share against a profit of $232,389, or $2.12 a share for the preceding fiscal year.

Obituaries

Fred Bettiol

Fred Bettiol, production manager for Charles of the Ritz, died suddenly at Post-Graduate Hospital, New York, March 5. He was forty-three years old. Mr. Bettiol had undergone an operation three weeks previously and was thought to be well on the way to recovery. He had been associated with Charles of the Ritz for fifteen years, longer than any other employee. He operated the laboratory for Mr. Charles when the firm had only salons.

Dr. Francis Despard Dodge

Dr. Francis Despard Dodge, chief chemist and research scientist of Dodge & Olcott Company, New York, for fifty years, died suddenly March 15, of a heart ailment. Dr. Dodge who was seventy-four years old, was born in Washington, D. C., the grandson of Richard J. Dodge who was at one time a partner in Dodge & Olcott.

When Dr. Dodge started his education he lived with his grandfather in Brooklyn, first attending Professor Hart's Latin School, and later Brooklyn Polytechnic Institute. In 1884,

DR. FRANCIS D. DODGE

when sixteen years old, he entered Columbia University School of Mines after passing the necessary examinations. His interest centered on chemistry, and he followed research in this line, specializing in aromatic chemicals, essential oils and kindred synthetic products. He studied the constituents of very many products, and was the first to isolate citral from lemongrass oil.

In 1888, Dr. Dodge received his Ph.B. from Columbia, continuing there as assistant in Organic Chemistry for two years and receiving the degree of Ph.D. in 1890. Following this he went to Germany and studied in the University of Heidelberg. Due to the death of his grandfather, he was only able to remain at Heidelberg for one year, returning to this country late in 1891. Soon after his return he entered the employ of Dodge & Olcott.

If...you are one of these manufacturers you should read this advertisement

Are you one of the pharmaceutical manufacturers who require Magnesium Carbonate U.S.P. of exacting specifications?

Then, this NEWS is for you.

A large user of Baker's Magnesium Carbonate U.S.P. has turned his complete manufacturing facilities over to war-time products. Thus, considerable tonnage of Magnesium Carbonate of exceptional quality is freed for other buyers, at no price premium.

This Magnesium Carbonate U.S.P.—like *all* sold under the name of Baker—is extremely low in calcium content and iron content. It assays uniformly as to MgO and will give you uniform bulk. The crystal structure is uniform—a fine white powder, 300 mesh and finer.

A few of the manufacturers who will be especially interested

Manufacturers of citrate magnesia, internal powders (including anti-acids or ingredients of tablets), flavoring extracts, filtration of elixirs, will be interested in the chemical analysis and physical uniformity of Baker's Magnesium Carbonate.

Makers of cosmetics (deodorant creams and powders, face powders, foot powders, dusting powders, toothpaste and powders) will appreciate its uniform bulk which overcomes difficulties in both machine and hand-filling operations.

All manufacturers who have exacting specifications will be particularly interested because this U.S.P. chemical is manufactured under most rigid controls, assuring uniformity as to chemical analysis, volumetric density, crystal structure, particle size—and is exceptionally low in impurities.

We urge you to write for typical analysis and free testing samples. This is a splendid opportunity for large pharmaceutical manufacturers to obtain a second source of supply of Magnesium Carbonate and for smaller manufacturers to get an unusual product that fully meets U.S.P. standards.

Baker's fine chemicals

J. T. BAKER CHEMICAL CO., Phillipsburg, N. J.

NEW YORK: 420 Lexington Avenue PHILADELPHIA: 220 South 16th Street CHICAGO: 435 N. Michigan Avenue

CUM LAUDE

A shipment of Penick botanicals was sent to college. The portion of a letter received from this nationally known institution, speaks for itself. Penick botanicals have long been used by pharmacy colleges in botanical and pharmaceutical studies, with uniformly satisfactory results.

Dear Sirs:

In connection with the recent shipment of drugs which this laboratory received from your firm, I wish to convey to you my complete satisfaction with the quality of the drugs, as well as with the packaging. I believe that this was the best shipment that I have seen in my fourteen years of connection with the College of Pharmacy.

The most extensive array of laboratory and production equipment in the botanical field is maintained by Penick, supervised by skilled scientists. Thus, is made available more than 900 quality-tested and reliable botanical items.

FOLLOW THE "PENICK LINE" TO BOTANICAL QUALITY

Gums, Crude Drugs, Insecticide Ingredients, Fish Liver Oils, Extracts and Cosmetic Raw Materials.

THE LIST OF MEDICINAL BOTANICAL DRUGS THAT WENT TO COLLEGE:

49	Kinds of Roots
21	Kinds of Herbs
18	Kinds of Bark
15	Kinds of Seed
8	Kinds of Buds and Berries
5	Kinds of Gums
4	Kinds of Nuts
17	Miscellaneous Items
137	

S. B. PENICK & COMPANY

50 CHURCH ST., NEW YORK, N. Y.

735 W. DIVISION ST., CHICAGO, ILL.

THE WORLD'S LARGEST BOTANICAL DRUG HOUSE

HELFRICH

A GREAT NAME IN LIPSTICKS
A GREAT NAME IN COSMETICS

Great names are made by great achievements. It is an achievement to produce a lipstick so good that the critical jury of American women will repeatedly buy Helfrich Radiance Lipsticks wherever they are sold.

Judge for yourself the keeping qualities of the color in Helfrich Radiance Lipsticks, the way it stays on, its non-greasy appearance and its sweat-proof characteristics.

Naturally all of our lipsticks are made with Certified Colors and are fully protected by Products Liability Insurance.

Other HELFRICH products include: **All types of Powders, Creams and Lotions. Rouge and Powder Compacts. Creme Rouge, Eyeshadow and Cosmetique.**

WE MAKE PRIVATE BRAND COSMETICS EXCLUSIVELY.
WE DO NOT COMPETE WITH OUR CUSTOMERS.

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HELFRICH Laboratories

IN THE DARK?

Turn the light on today's perfuming problems —and take advantage of D & O's 144 years of experience in the Aromatic Chemical Field.

Today — as in many other trying times — D & O customers are maintaining the quality and identity of their established products.

So don't "grope"—"Call D & O"

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D&O
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1798

Dr Dodge was a liberal contributor of scientific articles to various chemical journals, giving freely of the results of his research. His hobbies were microscopy and crystallography. He held a patent on models of the atomic structure of molecules.

Dr. Dodge had been a member of the Chemists Club since 1900. He was also a member of the American Association for the Advancement of Science, the American Chemical Society, the American Pharmaceutical Association, Sigma Xi, and many other associations pertaining to chemistry and its arts. He was also a member of the Long Island Historical Society.

Dr. Dodge's great interests were his home and his laboratory. He was of a retiring nature, never seeking, but rather shunning publicity or prominence.

M. R. Dinkelspiel

Dr. M. R. Dinkelspiel, associated with Merck & Co., since 1929, died at his home in New York, March 15. He was sixty-seven years old.

He was an associate editor of "The Merck Manual of Therapeutics and Materia Medica" and a medical writer in the advertising department. He also was a frequent contributor to "The Merck Report."

Dr. Dinkelspiel was born in New York in 1875. He was educated in the public schools, the Woolsey Academy, Dr. Sach's Collegiate Institute, and Tarrytown Military Academy. He studied at Jefferson Medical College, Philadelphia, where he received the gold medal award in his sophomore, junior and senior years. He also received awards in pediatrics and obstetrics. Later he was resident physician at the Philadelphia General Hospital, instructor in ophthalmoscopy at Jefferson Medical College, and instructor in ophthalmology at Medico-Chirurgical College. He was also on the editorial staff of the Philadelphia Medical Journal and Therapeutic Monthly and the author of numerous medical articles, and translator of several volumes of Nothnogel's series of medicine.

Mrs. George Lueders

Mrs. Clothilde Kurtz Lueders, widow of George Lueders, for many years head of George Lueders & Co., New York, died at her home in Summit, N. J., March 29. She was seventy-five years old.

Mr. Lueders died in 1933. She is survived by a daughter, Mrs. Henry M. Paulsen, and two sons, George K. and Frederick J. Lueders.

Birdsey L. Maltbie

Birdsey Lucius Maltbie, founder and chairman of the board of the Maltbie Chemical Co., Newark, N. J., died at his home in Altamonte Springs, Fla., March 26 after an illness of several months. He was seventy-eight years old.

Mr. Maltbie was born in Cattaraugus, N. Y., and began his life work at an early age in his father's drug store. He was graduated from the Albany College of Pharmacy in 1885 with highest honors and for a few years thereafter was employed in some of the leading drug stores in western New York as prescription pharmacist. In 1888 he began in a small way the manufacturing business which later in connection with his brother, Ralph H. Maltbie, and a few old family friends was incorporated as the Maltbie Chemical Co. and soon was located at Buffalo, N. Y. The company was moved from Buffalo to Newark, N. J. in 1905.

Mr. Maltbie was president of the company until 1927 when he retired and became president of the board. He had previously made his permanent residence in Florida where he was active in civic affairs, mayor of the city for several years and prominent in its development and the surrounding country.

He was the author of "Maltbie's Practical Pharmacy," a text book of wide use among pharmacy students, and editor of a number of other publications. Mr. Maltbie was a charter member of the American Pharmaceutical Manufacturers' Association which was founded in 1910. He was elected secretary-treasurer in 1914, president in 1915 and again in 1916, and has been a director and member of the advisory council ever since as well as chairman of many important committees. His history of the first twenty-five years of the association was published in 1937.

Mary Gladys Ogilvie

Mary Gladys Ogilvie, eldest of the seven Ogilvie Sisters, hair specialists, died March 4 in Roosevelt Hospital, New York. Born in San Francisco, she was the first of seven daughters and two sons born to John and Catherine McGowan Ogilvie. Twenty years ago she opened the Oglivie salon in Paris, and made this her headquarters, for many years assisted by her sister Mabel. Later she managed the salon at Biarritz, and more recently with her sister, Elizabeth, was in charge of the firm's new salon in Washington.

Before entering the hair business, Miss Ogilvie was a millinery designer and had her own shop in New York, which she closed to join her sister Jessica, when the latter founded the family's first hair treatment salon more than thirty years ago.

Wilbur L. Scoville

Wilbur L. Scoville, formerly head of the analytical department of Parke, Davis & Co., Detroit, died March 10 at Gainesville, Fla. He was seventy-seven years old.

Mr. Scoville retired in 1934 after having been head of the Parke, Davis analytical department for ten years. He was for many years a member of the United States Pharmacopoeia and National Formulary revision committees.

Fred L. Seely

Fred L. Seely, formerly secretary-treasurer of the Paris Medicine Co., now Grove Laboratories, Inc., and son-in-law of the late E. W. Grove, died in Asheville, N. C., after a brief illness. He was seventy years old.

Mr. Seely was the founder of the Atlanta Georgian. He supervised construction of Grove Park Inn in Asheville, and later operated the hotel and Biltmore Industries.

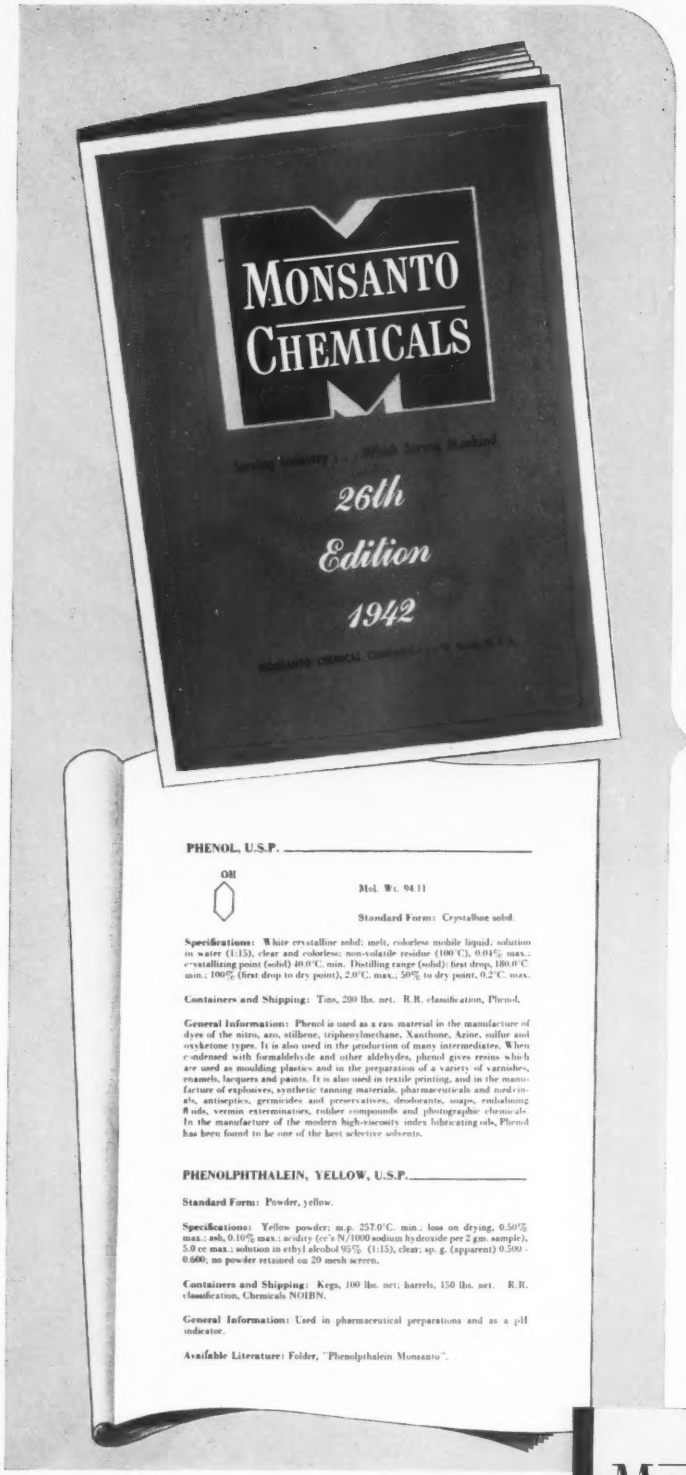
Early in life, he was head of one of the chemical departments of Parke, Davis in Detroit and is credited with the invention of the first machine for the manufacture of medicine tablets.

Charles F. Squibb

Charles Fellows Squibb, son of the founder of E. R. Squibb & Sons, died in Paris, February 19. He was eighty-three years old.

Mr. Squibb was born in Louisville, Ky., and was graduated from Harvard in 1881. He became associated with E. R. Squibb & Sons as a research chemist upon his graduation and remained with the company until the Squibb family sold its holdings. He then devoted himself to private chemical experiments at his home in Bernardsville, N. J., until 1929 when he moved to Paris.

He is survived by three daughters and three sons.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1942
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OH
Mol. Wt. 94.11
Standard Form: Crystalline solid.
Specifications: White crystalline solid; melt, colorless mobile liquid; solution in water (1:15), clear and colorless; non-volatile residue (100°C), 0.01% max.; crystallizing point (solid) 40.0°C. min. Distilling range (solid): first drop, 180.0°C min.; 100% (first drop to dry point), 2.0°C. max.; 50% to dry point, 0.2°C. max.
Containers and Shipping: Tins, 200 lbs. net. R.R. classification, Phenol.
General Information: Phenol is used as a raw material in the manufacture of dyes of the nitro, azo, stilbene, triphenylmethane, Xanthone, Azine, sulfur and oxyketone types. It is also used in the production of many intermediates. When condensed with formaldehyde and other aldehydes, phenol gives resins which are used as moulding plastics and in the preparation of a variety of varnishes, enamels, lacquers and paints. It is also used in textile printing, and in the manufacture of explosives, synthetic tanning materials, pharmaceuticals and medicinals, antiseptics, germicides and preservatives, deodorants, soaps, embalming fluids, vermin exterminators, rubber compounds and photographic chemicals. In the manufacture of the modern high-viscosity index lubricating oils, Phenol has been found to be one of the best selective solvents.
PHENOLPHTHALEIN, YELLOW, U.S.P.
Standard Form: Powder, yellow.
Specifications: Yellow powder; m.p. 257.0°C. min.; loss on drying, 0.50% max.; ash, 0.10% max.; acidity (cc's N/1000 sodium hydroxide per 2 gm. sample), 5.0 cc max.; solution in ethyl alcohol 95% (1:15), clear; sp. g. (apparent) 0.500 - 0.600; no powder retained on 20 mesh screen.
Containers and Shipping: Kegs, 100 lbs. net; barrels, 150 lbs. net. R.R. classification, Chemicals NOIBN.
General Information: Used in pharmaceutical preparations and as a pH indicator.
Available Literature: Folder, "Phenolphthalein Monsanto".

HOW TO FIND WHAT YOU WANT— WHEN YOU WANT IT

HERE is information on Monsanto's complete line of products arranged in handy, ready-reference form to save you time and trouble in finding exactly the right material for your needs.

In this 160-page new edition of the Monsanto products book, you will find structural formulas, accurate descriptions of physical and chemical characteristics and brief data on uses that will often tell you at a glance whether or not a specific material has promise of meeting your needs. You will also find information on containers and shipping classifications and a reference to any additional Monsanto literature that may be available.

If you would like to have this time and trouble-saving information at *your* fingertips, write today on your business letterhead for a copy of the 26th edition of "Monsanto Chemicals." MONSANTO CHEMICAL COMPANY, Organic Chemicals Division, St. Louis, Missouri. District Offices: New York, Chicago, Boston, Detroit, Charlotte, Birmingham, Los Angeles, San Francisco, Montreal.

MONSANTO CHEMICALS

SERVING INDUSTRY . . . WHICH SERVES MANKIND

"E" for Excellence...the pennant denoting the highest service accomplishments in the United States Navy... flies with the Naval Ordnance flag over Monsanto. In the words of the Secretary of the Navy, this award has been made to Monsanto "in recognition of your outstanding efforts in the production of ordnance materiel vital to our national defense."

F.T.C. ACTIVITIES

Orders

Herolin Products

Herolin Co., Inc., S. W., Atlanta, has been ordered to cease representing that "Original Herolin Beautifier Hair Dressing" penetrates to the roots of the hair, revives hair cells or causes hair to grow, and prevents dandruff or other scalp ailments; to cease certain representations of "Herolin Hair Gloss and Temple Oil," "Herolin Nayko Tablets" and "Herolin Female Tonic"; and to discontinue representing that the effects of "Herolin Moonbeam Pills," "Herolin Moonbeam Tonic" and "Herolin Croup Salve" are in excess of certain temporary relief afforded by their use, and that "Herolin Tetter Salve" possesses value in treating dandruff in excess of softening dandruff scales and facilitating the removal thereof.

The respondents are ordered to cease advertising that "Herolin Blood Tonic" will build blood or has any therapeutic value in treating skin affections or blood disorders, and that "Herolin Healing Oil" is capable of penetrating the skin to the muscles or joints or constitutes an effective treatment for rheumatism, lumbago and other ailments; and to discontinue advertisements which use the words "Blood Tonic" as part of the name "Herolin Blood Tonic" or otherwise represent that it is a blood tonic, or use the word "Healing" as a part of the name "Herolin Healing Oil" or otherwise represent that the preparation has healing properties.

Also prohibited are advertisements which fail to reveal that continued use of "Herolin Blood Tonic" may result in chronic mercury poisoning and that it should not be used by persons having tuberculosis or goiter, or advertisements which fail to contain a warning against repeated application of "Herolin Healing Oil."

Stipulations

Warner's Remedies

Warner's Renowned Remedies Co., Minneapolis, has been ordered to cease advertising that "Warner's Renowned Prescription No. 6," "Warner's Renowned Laxative Tablets," and "Warner's Renowned Alkaline Douche Tablets," are cures, remedies or effective treatments for functional sterility; have therapeutic value in treating any form of sterility, or possess any properties which have value in promoting the functioning of the female reproductive organs.

Honoroff Laboratories

Honoroff Laboratories, Inc., Chicago, and its president, Fred A. Honoroff, agree that, in the sale of "Effervescent Seltzer," they will cease any advertisement which fails to reveal that the preparation should not be used in excess of the dosage recommended, since such use may cause dependence upon a drug, skin eruptions, mental derangement or collapse, and that it should not be taken by or administered to children; provided, however, that the advertisement need contain only the statement "Caution: Use only as directed," if the directions for use wherever they appear in the labeling contain a caution or warning to the same effect. The respondents further agree to discontinue selling "Effervescent Seltzer" in containers which simulate in appearance the containers in which competing merchandise is sold.

The respondent corporation and Honoroff, who also trade as Ritz Laboratories, further stipulate that, in the sale of "Ritz Breath Purifier," they will stop representing that the product prevents bad breath or destroys breath odors; will discontinue advertising any specified sum of money as possible earnings of salesmen or distributors of the preparation for any given period of time which is not a true representation of the average net earnings consistently made by such salesmen or distributors under normal business conditions; and will cease representing, through use of the name "New York" on their stationery or printed matter, that they maintain an office or establishment in New York, when such is not a fact.

Ru-Mari Claims

William G. Carr and Ronald Brunswick, Jr., trading as American Ru-Mari Co., Los Angeles, agree to cease representing that "Ru-Mari" is a remedy or an effective treatment for arthritis, neuritis, rheumatism, sciatica, lumbago or gout, or for pain associated with such conditions.

Sas-Nak Laxative

Arthur T. Wilson, trading as The Sas-Nak Co., Kansas City, Mo., agrees to discontinue representing that "Sas-Nak" is a remedy for indigestion, shortness of breath, kidney, bladder, liver and stomach conditions, rheumatism and rheumatic pains, colds, influenza, loss of appetite and skin eruptions, or has any value in such conditions in excess of temporary relief it may afford by causing a partial evacuation of the intestinal tract, a stimulus to the flow of gastric juice, and a mild stimulus to the appetite.

Also he will cease advertisements which state that "Sas-Nak" should be taken regularly every day or which fail to reveal that the product should not be used when abdominal pains, nausea, vomiting or other symptoms of appendicitis are present; that frequent or continued use of the product may result in dependence on laxatives; and that the product contains the powerful poison strychnine in quantities sufficient to be dangerous to health if taken in excess of the dosage recommended. The stipulation provides, however, that such advertisements need contain only the statement: "Caution, Use Only As Directed," if the directions for use, wherever they appear in the labeling, contain an appropriate warning.

Breath Correcting Lipstick

R. W. Appleton, trading as Parker-Bouldin Co., St. Paul, Minn., agrees to cease representing that "Priscilla Parker Breath Correcting Lipstick" is effective in neutralizing offensive breath or that the product's ingredients are harmless. The respondent also agrees not to publish advertisements which fail to reveal that continued use of the lipstick over too prolonged periods of time may in certain individuals cause exfoliation of the skin; provided, however, that such advertisement need contain only the statement: "Caution, use only as directed," if the directions in the labeling contain an appropriate warning. According to the stipulation, the respondent's lipstick contains the chemical resorcinol. The respondent also stipulates that he will cease employing the terms "Breath Correcting" or "Deodorizing" in the brand name of the lipstick.

YOU CAN IMPROVE ON NATURE

Nature has always been an excellent teacher for those engaged in the manufacture of synthetic aromatic chemicals. Through her, many profound secrets have been divulged, a multitude of problems answered.

Yet, in an unending quest for perfection, scientists and perfumers have come to know that even Nature is not perfect. Few natural oils are entirely stable. Some will not even stand isolation from the living blossom and nearly all natural products show variation in their odor quality—fluctuating from crop to crop.

Synthetic Aromatics, on the other hand, live up to the most rigid specifications. They enable the experienced perfumer to rely on his formulation once and forever. Moreover, they inspire him with entirely new ideas. With their help, the perfumer of our day creates many delightfully different fragrances—"floral" odors Nature never knew.

Right now interesting new aromatics are undergoing severe tests in the Dow laboratories. They hold encouragement and promise for the future—new products of exceptional merit.

DOW *Synthetic Aromatics*

THE DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN

New York City · St. Louis · Chicago · San Francisco · Los Angeles · Seattle · Houston

D'Orsay Not French

D'Orsay Sales Corp., New York, agrees to cease using the word "Paris" alone or in conjunction with other words of French or other foreign derivation, so as to imply that the preparations so labeled or advertised are manufactured, mixed, blended or compounded in Paris, France, and imported, as finished products, into the United States. The stipulation provides that when such products are domestically made into finished products from ingredients all or a substantial portion of which have been obtained from France, the word "Paris," if used to indicate the foreign origin of the ingredients, shall be accompanied by other words clearly indicating that the finished products are made in the United States and are not of French manufacture. The respondent also agrees to desist from using the phrase "designed by LaLique" in referring to American-made bottle containers.

Dr. Peter Fahrney

Dr. Peter Fahrney & Sons Co., Chicago, agrees to cease representing that "Forni's Alpenkrauter" will regulate the bowels, relieve rheumatic pains, ward off disease, and beneficially affect skin eruptions; that "Forni's Magolo" will neutralize acids in the stomach or be beneficial in cases of diarrhea due to "summer complaint"; and that "Forni's Heil-Oel Liniment" is a competent treatment for corns and callouses, wounds caused by rusty nails, or severe burns, and may be used for backache with beneficial results, unless such representation is limited to the type of this ailment in which such results may be obtained.

Hoyt Chemical Co.

Verne N. Seeley, Herman P. Doyle and Fred D. Grantham, trading as Hoyt Chemical Co., Denver, agree to cease representing that "Hoyt's Compound" is a remedy for kidney afflictions, biliousness, rheumatism, stomach ailments, indigestion or colds; that it will tone up the system, restore health and result in increased energy; that it is an effective bowel regulator, will leave the intestinal tract pure and cleanse the blood stream; and that it is a modern discovery and is made by the foremost authority in the United States.

The respondents also stipulates that they will discontinue use of the word "chemical" in their trade name or the word "chemists" in any manner to imply that they are chemists; and will stop employing the word "manufacturing" or words of similar meaning to convey the impression that they manufacture the products they sell.

Fitch Shampoo Price

F. W. Fitch Co., Des Moines, Iowa, agree to cease representing that its No. 6 size bottle of "Fitch's Dandruff Remover Shampoo" is the "75c Size" or has a "Regular Retail Price of 75c," or representing in any way that its various types of merchandise have regular values and customarily sell for sums in excess of the prices actually charged the public.

Complaints

Montgomery Ward Cosmetics

Montgomery Ward & Co., Inc., Chicago, is charged with misrepresentation of cosmetics.

The complaint alleges that in advertising the respondent has represented that Ward's cosmetic cream preparations, because of the addition of vitamins, will therapeutically treat or benefit the skin and are more effective in keeping the complexion clear and smooth; and that in the same manner as vitamins internally consumed help make a healthy body, so vitamins A and D externally applied to the skin help make the skin healthy and beautiful.

The complaint declares these representations are exaggerated and misleading and that use by the respondent of the words "Tissue Cream" as part of the former name of a cosmetic cream preparation also is misleading in that the words "Tissue Cream" so used imply that the preparation has a therapeutic value in treating or nourishing the tissues of the skin beyond the ordinary value of a lubricant.

Howe Cosmetics

Phil Howe, trading as Howe & Co., Seattle, is charged with misrepresentation of cosmetics.

The respondent allegedly represents that "Cleansing Cream—Carrot Type," "Creme Nocturne—Avocado Type," "Hand Lotion—Honey and Almond Type," and "Finishing Cream—Turtle Oil Type," contain, respectively, the juice, extract, or some part of carrots, avocados, honey and almonds, and turtle oil, and have the characteristic properties thereof.

The complaint charges that such representations are false and misleading as are the further claims that "Creme Moderne" penetrates the skin; that "Cleansing Cream—Carrot Type" blends with the skin's own oil and induces natural lubrication; that "Creme Nocturne—Tissue Type" will correct skin and tissue dryness; that "Creme Nocturne—Avocado Type" will nourish the skin with vitamins and stimulate dormant muscles; and that the preparations designated "Hollywood Cosmetics, Favorite of the Stars" were originated in and are manufactured in Hollywood by Howe & Co., and are recognized by motion picture celebrities as possessing superior cosmetic properties.

According to the complaint, the preparations designated "Hollywood Cosmetics" are purchased by the respondent in their finished form from manufacturers in Seattle and New York and other places outside of California and are packed and sold by him under his own name or brands.

Vitamin Products Co.

Royal Lee, trading as Vitamin Products Co., Milwaukee, is charged with false advertising of "Catalyn," "Vitamin A Complex" and "Vitamin B Complex."

The complaint charges that none of these vitamin preparations is a competent nutritional or corrective treatment for prevention of the diseases mentioned.

It is further alleged that "Catalyn," except as to Vitamin D and, to a limited extent, to Vitamin A, does not furnish sufficient vitamins to have therapeutic value in vitamin deficiency or in prevention of vitamin deficiency diseases.

The respondent represents that synthetic vitamins have been shown by accepted authorities not to be capable of curing or relieving the diseases or symptoms of deficiency caused by a diet deficient in vitamins. In the treatment of such diseases or symptoms, according to the complaint, synthetic vitamins are equally as effective as vitamins obtained from a natural source.

Other misrepresentations concern claims for the therapeutic and nutritional properties of "V. P. Organic Mineral Tablets," "Cerol," "V. P. Phosphade," "Cerodyn," and "Viable Acidophilus Yeast."

INDUSTRY'S BOOKS

This Chemical Age, by Williams Haynes, 381 pp., Illus., Alfred A. Knopf, New York, Cloth, $3.50.

Miraculous indeed are the things that come out of the chemical laboratory and the chemist's test-tube. Too often and too long has this wonderful story been witheld from the general reader. This, probably because no one has had sufficient grasp of the subject so that the story could be told, at the same time simply and dramatically. Mr. Williams Haynes does this admirably well in "This Chemical Age, The Miracle of Man-made Materials." Here in this work is the story of the early pioneers in chemistry—the men whose early success and failure laid the ground work for the great chemical industry as it is today. Strangely enough, it was more often the failure of these early researchers, rather than their success in the task they had in mind, which led to and opened up new fields of research and industrial development. Here is the story of the establishment of the chemical industry in the United States soon after the first World War. And last, but probably most interesting and important, the advent of a great synthetic chemical development which we must now watch with such fervent hope. It is here that we must look for replacement of the many natural products no longer available to us because World War II has either shut us off from, or made it difficult to obtain them at their original source. The quest for synthetic quinine or a suitable substitute has gone on for a long time. The research along this line must, and now will be, greatly intensified. New perfumes will come out of the test-tubes. New drugs such as the sulfonamides will be developed. New materials as wonderful and as successful as Nylon, rayon, cellophane, synthetic rubber will emerge from the laboratory. It is the story behind the research already done in this field, as well as the possibilities ahead, which makes such fascinating reading. Mr. Haynes' book makes one feel that his task is not yet done—that the greatest story of the wonders of modern chemistry is yet to be told.

Manufacture of Soda, by Te-Pang, Hou, Ph.D., Second Ed., 590 pp., Illus., Reinhold Publishing Corp., New York, Cloth, $9.50.

This is No. 65 in the American Chemical Society Monograph Series and deals with the manufacture of soda with special reference to the ammonia process. It is probably the first book of its kind in the English language covering the subject in a manner which reveals the manufacturing processes, equipment, etc. in general use, and is the outgrowth of personal notes taken daily from experience and observation of the author in direct contact with operations in an alkali plant over a period of more than ten years. Contents: Natural Soda; History of Ammonia Soda Process: Statistics; Preparation of Brine: Rock Salt and Sea Salt; Purification of Brine; Burning of Limestone; Ammoniation of Saturated Brine; Carbonation of Ammoniated Brine; Working of Carbonating Towers or "Columns;" Filtration of Crude Sodium Bicarbonate (Ammonia Soda); Composition of the Bicarbonate; Composition of Mother Liquor from Carbonating Towers; Phase Rule in Tower Reactions: Graphical Representation of Ammonia Soda Process; Decomposition of Sodium Bicarbonate by Calcination; Recovery of Ammonia—Efficiency of Operation in Ammonia Still; By-Products from Distiller Waste; Allied Products of Ammonia Soda Industry; Manufacture of Refined Sodium Bicarbonate; Manufacture of Caustic Soda—Chemical Process; Manufacture of Electrolytic Caustic, Chlorine, and Chlorine Products; Wet Calcination of Sodium Bicarbonate; Generation of Power for Ammonia Soda Plants; Boiler Operation and Conditioning of Boiler Feed and Cooling Water in Ammonia Soda Plant; Special Requirements of Ammonia Soda Industry; Control in Ammonia Soda Process; Losses and Consumption of Raw Materials in Ammonia Soda Process; Modifications and New Developments of Ammonia Soda Process; Chemical Analyses and Tests in Alkali Industry; Behavior of Soda Ash in Storage; Layout, Design and Location of Ammonia Soda Plant; Centrifugal Pumps Applied to Ammonia Soda Industry.

Packaging Catalog 1942, 638 pp., The Packaging Catalog Corp., New York, $5.00.

The new "Packaging Catalog" is a complete compendium of encyclopedic text on every type of package, every package part, every type of packaging material; it treats of every type of package machinery and equipment; the special sections on Packaging Design cover the new trend toward simplification of packages, and include a valuable treatment of color photography. The section on Packaging Law is one of special importance in an industry where regulations become integral parts of the package design. Six new charts have been added to this edition, namely: Package Design Checking Chart; a Properties Chart of Plastic Sheeting used for Rigid Containers; Properties Chart of Molded and Cast Plastics Used in Packaging; Properties and Use Chart of Adhesives; Labeling Difficulties Chart—Causes and Corrections.

Each of these charts should constitute a source of reference and information during the year as they offer solutions to a multitude of problems that will arise to confront the Packaging Industry. The 17 sections of the Catalog are classified as Design Principles; Packaging Law; Paper Containers; Wood, Leatherette, and Pottery (this section is entirely new and is included for the first time); Bags; Rigid Plastic Sheeting; Wrappings; Metal Containers; Glass Containers; Closures; Molded Plastics; Displays; Labels, Seals, and Tags; Printing; Adhesives; Machinery and Supplies; Shipping; Directory.

Industrial Chemistry of Colloidal and Amorphous Materials, by Warren K. Lewis, Ph.D., Lombard Squires, S.M., Geoffrey Broughton, Sc.D., A.I.C., 540 pp., The MacMillan Company, New York, Cloth, $5.50.

This book is a text on the industrial chemistry of colloidal and amorphous materials. Its purpose is to give readers starting study of the subject with a general background of chemistry a satisfactory introduction to the field. It is not intended to be merely descriptive of the methods of the industries but to give the reader such an insight into the underlying phenomena that he can appreciate the potentialities and limitations of processes and materials and develop his capacity for controlling and using them. This presupposes a mastery of those phases of science underlying the industry. Table of Contents: Structure of Liquids; Viscosity; Surface Tension; Surface Tension and Orientation; Adsorption; Suspensoids; Amorphous Solids; Emulsoids; The Electrochemical Behavior of Colloids; Gelation; Emulsions and Foams; Crystalline and Amorphous States; Thermoplastics, Glass; Plasticization by Solution; Paper; The Plastic Fibers; Leather; Rubber; Ceramic Industries; Synthetic Resins and Plastics; Textile Fibers.

Stedman's Shorter Medical Dictionary, by the late Thomas Lathrop Stedman, A.M., M.D., 635 pp., Thumb Indexed, American Publishers Corp., Chicago, Cloth, $2.50.

This is a completely revised and enlarged edition of this well-known medical dictionary and is popularly priced to make it available to all. It contains hundreds of new words and definitions in materia medica, nursing, physical therapy, dietetics, psychiatry, surgery, allergy, endocrinology, etc. The easily portable form is meant to give doctors, premedical students, graduate and student nurses, dentists and dental students, pharmacists, and veterinarians, and indispensable reference dictionary. This volume gives the meaning, derivation, and pronunciation of nearly all the terms ordinarily used in medicine, surgery, dentistry, and pharmacy.

The Electron Theory In Medicine, by Thomas Colson, D.O., B.S., LL.B., 209 pp., The College of Electronic Medicine, San Francisco, Cloth, $3.

The Electronic Theory, as it is related to the field of medicine when it is scientifically developed and applied, will enable the physician, with an ever increasing degree of certainty, to not only determine the cause but to ascertain what means to employ in assisting the patient's system to overcome the causative factors of the injurious chemical action taking place in certain body tissue. Electronic Medicine divides itself into two main divisions: 1. Analysis of body tissue to determine what, if any, injurious chemical changes are about to or actually are taking place in the body, and to ascertain the exact cause for such chemical action. 2. Applying to body tissue, in which harmful chemical action is taking place such radiated energy of proper power, wave length and quality as will assist the patient's system to restore such tissue to its normal atomic balance. Such energy may be supplied by: A. Artificially created, tuned low power electro-magnetic energy. B. Certain electro-magnetic energies given off by the sun or artificial light, or C. Chemical substances, radiating the proper energy, internally or externally applied. It is not the purpose of this book to argue the case of Electronic Medicine but rather to provide in one volume a group of scientific facts, developments and observations relating to the subject. The work is divided into two main parts namely, The Electron and Medicine, and Human Ailments Viewed Electronically.

Medical Diseases in Tropical and Sub-Tropical Areas, 282 pp., Chemical Publishing Co., Brooklyn, Cloth, $4.75.

This is the first American edition of an English work reprinted by permission of the Controller of His Brittanic Majesty's Stationery Office. This military field manual, which has been produced under war conditions, is intended as a handy manual for use in the field where lack of bulk is an over-riding consideration. Only essential material needed during special emergencies is included. Contents: Ancylostomiasis, Arthropod Pests, Beriberi, Blackwater Fever, Cerebro-Spinal Fever, Cholera, Cysticercosis, Dengue, Diarrhoea, Dysentery, Dysentery Amoebic, Dysentery-Bacillary, Filariasis, Heart-stroke, Hepatic Abscess, Jaundice, Leishmaniasis, Leptospirosis, Malaria, Myiasis, Oriental Sore, Paratyphoid Fever, Phlebotomus Fever, Plague, Relapsing Fever—including Tick Fever, Schistosomiasis, Scurvy, Skin Diseases, Sleeping Sickness, Small-Pox, Sprue, Trench Fever, Typhoid Fever, Typhus Fever, Undulant Fever, Yellow Fever.

Minerals in Nutrition, by Zolton T. Wirtschafter, M.D., 175 pp., Reinhold Publishing Corp., New York, Cloth, $1.75.

This is a concise, clearly written story of the vital part played by mineral substances in the body. It explains in simple, non-technical language the importance of such commonplaces of the dinner table as water, salt and milk, as well as of the numerous minerals contained in other foods. Few people realize that the beneficial effect of many of the vitamins is due to the presence of minerals, such as calcium and phosphorus, and that if these are lacking no amount of vitamin intake will be effective. This book will be of compelling interest not only to doctors, nurses, dietitians, pharmacists, and nutrition workers, but to all who wish to understand the basic requirements of an adequate diet. It includes complete tables of the mineral content of common foodstuffs, which will be of great service to meal-planners. Contents: The Minerals in the Body; The Action and Distribution of Minerals; What Salt Does in the Body; Potassium; Calcium; Magnesium; Phosphorus; Sulfur; Iron; Iodine; Other Minerals; Pregnancy; Lactation; Summary.

As a service to our subscribers who may not find a bookstore convenient we offer for sale any book published in the United States at regular publisher's price.

DRUG AND COSMETIC INDUSTRY
101 W. 31st Street New York, N. Y.

Perhaps Our Laboratory Services Can be of Help

In these days of stress and priorities many things we should like to do to help you are impossible, but our laboratory facilities and technicians are still available, are still

- aiding in the preparation of formulas and materials for tabletting
- recommending binders, lubricants, disintegrating agents or other excipients for use in special formulas
- showing how "slugging" or precompressing methods can be used to advantage in tabletting troublesome, heat-sensitive or moisture-sensitive formulas
- demonstrating processes by the production of actual samples on our own laboratory equipment

Should you have to modify your tablet specifications or formulas because of shortages of certain ingredients, or because of packaging or similar problems . . . and if our Laboratory Division can help, in any way . . . this is your invitation to consult with us.

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F.J.Stokes TABLET MACHINES PHARMACEUTICAL EQUIPMENT FJS Est. 1895

PRODUCTION FORUM

By FRANCIS CHILSON
Production Engineer

PLANT CONVERSION

There is much talk throughout the country of converting plants of various kinds to war production. Emphasis is placed on the luxury industries like the cosmetic industry and various parts of the pharmaceutical industry. The transition from peace to war production can be accomplished without too much dislocation provided everyone pitches in and heartily cooperates. The trouble with the existing situation is that everybody is looking to Washington for ideas, leadership, and authority. Although there are in Washington, in the government, and in the various defense war boards that have been set up many good and great men, it is overrating them to assume that they can carry the whole load without your cooperation and initiative.

The writer suggested a plan to Washington and also to certain company officials in the trade under which non-defense industries could be put into war production with a minimum of lost time. The plan calls for the establishment of local production districts, each district to be supervised by a well known production manager or engineer, preferably one whose plant is already on war production. With proper support the supervisor can set up a staff to coordinate all the factories in his area. In other words, a production district would be in effect a very large factory and all of the individual factories in the district regardless of what they make would be looked upon as specialized departments in this factory. War contracts coming to any of the individual factories would first be sent to the district supervisor's office for allocation. The district supervisor would have the authority not merely to allocate but to commandeer plant, personnel, and equipment as necessities arose. The district supervisor would plan the entire production of his district just as though he were planning and coordinating the several departments of one big factory. The job sounds big but when you consider the fact that there are many plant managers in this country who have thirty or forty plants under their supervision then the problem appears less difficult.

To make a plan like this effective it is essential to cease thinking, as plant managers so generally do, in terms of finished products. We must on the other hand learn to think in terms of physical and chemical characteristics of the finished products and in terms of the fundamental operations required to make them. If we stop thinking of ointments and shaving cream and paints and think instead in terms of liquids, semi-solids, powders, and preformed solids, then it will become apparent that the manufacturer who makes a liquid regardless of whether it is a cosmetic, a food, a chemical, a pharmaceutical, or a paint is obliged to perform exactly similar operations and the only difference between the several plants is the question of sanitation and corrosion. The former can always be controlled; the latter is in some instances an insuperable obstacle. The point is that a manufacturer who can make one liquid can make any liquid; the manufacturer who makes one kind of paste can within the reservations named make any other kind of a paste; and the same is true of powder manufacturers. If we continue to think of ointments as ointments and creams as creams, we are limiting our horizons and our general usefulness in the plant conversion program.

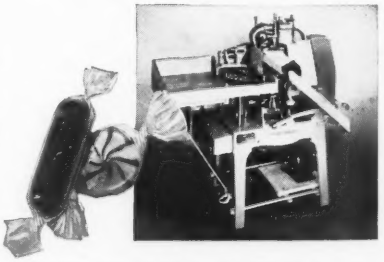
Exactly the same condition applies when you think of machines such as tanks or airplanes. Every machine is a composite of a series of sub-assemblies, and all mechanical industries fall into three basic categories; material makers, fabricators, assemblers. Sometimes all three categories are found in one plant. Any foundry or steel mill is an example of the first category,—ma-

LOOK AHEAD

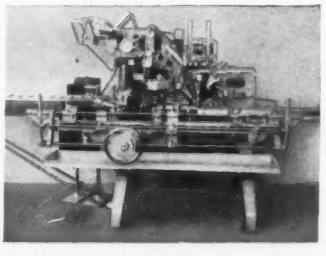
. . . It may save time and money on wrapping machinery

(For WAR or CIVILIAN production)

BANDAGES and food for our Army are being wrapped on our versatile FA model, which handles any type of material and is adjustable for a wide range of sizes.



TONS OF HARD CANDY for the Army are wrapped on our 22-B. One operator can wrap 150 pieces per minute.



SULFANILAMIDE for soldiers' kits is protected by a dust- and weather-protective wrap with easy-opening tape. The machine that produces this wrap is our CA-2, widely used for chocolate bars, headache powders, plug tobacco, etc.

As you probably know, a backlog of orders for industrial machinery is already accumulating in many plants. One thing is sure—those who look ahead, anticipate their needs and get their orders in first, will be the first to get machines.

Another fact to bear in mind is that many types of ***essential*** production rate ***war*** or ***civilian priorities***. Though our work on machines to supply our armed forces must come first, a priority will help us fill your needs.

Up to the present time, no changes have been made in our price structure—another good reason for acting now.

We will gladly study your packaging problems so that you may plan for machinery requirements or service to meet war or essential civilian needs. Our broad and intimate knowledge of conditions should enable you to make the right decision. We may even be able to show you how to meet new demands without additional machinery.

Put your problems up to our nearest office.

Solving problems built our business

PACKAGE MACHINERY COMPANY, Springfield, Massachusetts
NEW YORK CHICAGO CLEVELAND LOS ANGELES TORONTO
Mexico, D.F.: Agencia Comercial Anahuac, Apartado 2303
Buenos Aires, Argentina: David H. Orton, Maipu 231
Peterborough, England: Baker Perkins, Ltd.
Melbourne, Australia: Baker Perkins, Pty., Ltd.

PACKAGE MACHINERY COMPANY
Over a Quarter Billion Packages per day are wrapped on our Machines

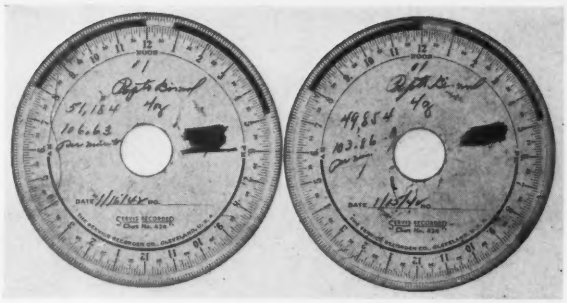
terial makers. Any machine shop or any plant having machine tools capable of fabricating parts from raw materials is an example of the second category—fabricators. The third category, assemblers, is pretty broad because it can include any plant which employs hand labor.

An assembly, especially a light assembly, can be made in any pharmaceutical or cosmetic plant. Putting two or three parts together as a rule requires only the ability to use the hands and to operate some simple hand tools. When we think of complicated machines like automobiles and airplanes, we are prone to think of the gigantic plants in Detroit as being automatic mechanisms. As a matter of fact, they are well organized assembly or *hand work* plants. Consider the Ford plant which everybody thinks of as automatic and you will at once realize that the least part of the plant is concerned with steel mill and foundry operations. An important secondary part of the plant is concerned with the machining of finished parts. But when you consider the assembly division, which is the most important part and the section from which the Ford plant received its world wide reputation, you will at once perceive that this important division is the hand work or assembly department.

This analysis of fundamental plant operations is made in some detail to emphasize the importance of thinking in terms of essentials and of outlining one approach to the problem of converting our plants to war production. Coming back to the question of the production district, it is easy to see that if the production district manager thinks in fundamental terms, he can utilize all of the space, personnel, and equipment in his district to the fullest advantage. There are, of course, supervisory problems and training problems to be considered but these problems are not insuperable. We have got a job to do. It's stupendous in scope and it must be done successfully in a very short time. Let's go!

BOTTLING RECORD

The record made by Norwich on its No. 1 bottling line is graphically depicted in the adjacent photograph. You will note from a study of the heavy line that on the two successive days mentioned last month the line did not stop between eight o'clock in the morning and noon and between one and quitting time. After my article appeared last month, my friend, Jim Rhinestrom, president of the Karl Kiefer Co., reproached me for failing to mention the fact that the line consisted pretty largely of Kiefer equipment. It occurred to me at the time I wrote the article that I might mention that the cleaner and filler were Kiefer rotary automatics, that the labeler was a New Jersey automatic, and that the capper was an RO automatic made by the Aluminum Seal Co. While all these machines deserve a lot of credit, they deserve little by comparison with



the credit which is due to Paul Jeffrey, head of the Norwich bottling department; George Bengert, the plant superintendent; and Howard Sumner, the genial overlord of the works, because the performance of the equipment was predicated on careful planning, accurate scheduling, unremitting supervision, and excellent coordination all the way through. The makers of the bottles, the caps, and the labels also deserve a substantial amount of credit, perhaps even more than the equipment builders, because it has been my observation that stoppages are more generally due to defects in packaging materials than to defects in packaging equipment. As a matter of fact, the machines produced by Kiefer and other packaging machinery builders are so well designed that they are generally capable of repeating this performance so long as they are properly supplied, managed and maintained. Anyway Bengert is now proudly wearing his leather medal.

Incidentally, to show you how small the world really is you may be interested to know that Bengert and I not only came from the same small upstate town, but we lived on the same street and graduated from the same high school. Since he was only a brat when I left Middletown, I had lost track of him until I had started to work on the modernization plans at Norwich. George is a good egg as well as a good plant man.

PRINTING GLASS

For many years we have been saying that the time will come when a method will be devised for printing labels directly on glass and other container material. Apparently the time has come. We have on our desk a notice from an organization known as Designers for Industry, Inc., Cleveland, Ohio, concerning the development of an automatic machine which it is said will print from one to four colors directly on bottles, cans, jars, or canisters. The method requires specially developed inks. The printing is by means of direct contact between the printing plate and the article to be printed. The plates are made from some sort of synthetic gum. It is further claimed that the inks which are used set instantly and permanently on the container surfaces and that one color can be superimposed upon another continuously. It is further contended that this machine is capable of printing between fifty and one hundred containers per minute.

Engineered...

to fit a full-rigged vessel into a bottle requires a knowledge of how it's done—and how it's engineered! And to fill your container efficiently, rapidly and economically to insure a low-cost-per-unit requires efficient—even inspired—machinery design.

The complete line of our machinery of engineered-design offers moderate first cost to the price-conscious executive and lasting, foolproof performance to the production-minded plant manager.

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4009 N. Rockwell St., Chicago, Ill.

The Bottling Engineer Handbook covers the complete line of equipment we manufacture. Write for your copy today.

MACHINERY OF ENGINEERED-DESIGN

LABEL CODER

The F. L. Smithe Machine Co., 645 West 44 St., New York, would like to call attention to their redesigned label coding machine. Many of these machines are already giving excellent service in the trade. They are used for imprinting code numbers on labels and circulars. The machine is completely adjustable, having a range in size from 7/8" x 1" to 8½" x 11". Speeds range from 150 to 200 labels per minute and up. Changeovers can be made from one size label to another in five minutes or less. Printing is done with a steel printing die and the use of the steel die in conjunction with printers' ink produces a clear printed number. The machine is very small and compact and a female operator can run it and make all of the adjustments. In one case where I saw this machine operating, a single girl was imprinting an average of 70,000 labels a day representing 16 different labels or changeovers.

A counting device for attachment to the machine and an automatic shut off can be obtained at slight additional cost. These devices enable your operator to turn on the equipment and forget about it. Registry of the code number is perfect. The device will spot a number in the center of an eighth inch margin either on the top, bottom, or sides of a label with absolute accuracy, provided the printing on all your labels is accurate and the labels accurately cut. In cases we have investigated the variation has been due not to imprinting but to labels. The code numbers can be changed without removing any parts because the numbers and letters are all on little wheels within the printing head. It is merely necessary to turn the wheels to bring the proper digits into place. We understand that there are still some of these machines on hand so you had better hurry up and get your order in.

TAURUS VICTOR SIMPSONIUS

I hope you guys won't blame me for the manner in which this department is assembled. The editor apparently takes the several paragraphs, shuffles them with whatever pictures he happens to have on hand, and pastes up his dummy without thinking of consequences. From now on I'm never again going to say "the adjoining" or "adjacent" picture because only God knows what picture is likely to be placed next to the reference. Last month, for instance, instead of the picture of my new bull, a picture of a drum carrier with a handle in the middle was placed next to the paragraph describing the bull. I throw the bull on occasion but when I describe one I like the description to be properly illustrated. The result of this "fox paw" is that everybody has been panning the life out of me. Among the insulting missives received to date was one from a bird who signed himself "Mendel-Darwin" which is quoted verbatim but in order to understand it properly you will have to refer again to the note on page 313 of last month's issue.

"Dear Mr. Chilson,

'The adjoining picture is not a cow.'

These deathless words lifted verbatim from your March effort, Page 313, merit high billing among my collection of Chilsonia.

"Although even your most feebleminded reader may believe the picture actually depicts a bull, I cannot promise as much for any self-respecting cow. And as for those who look to your columns for guidance on animal husbandry and/or sex life, my only comment is to repeat the punch-line of that well-known tale which ends, 'They (the cows) are due for a serious disappointment.'

"If even your most ingenious mind can devise a way to mate what you show in the said adjoining picture with a cow the resulting progeny may well be a baby jeep but it won't be a calf. I'll lay you odds on that!

Yours truly,

Mendel-Darwin"

INFRA-RED DRYING

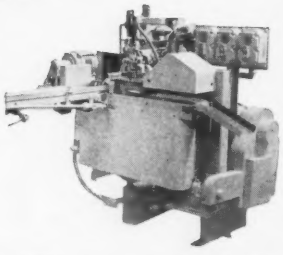
General interest has been aroused in the use of infra-red lamps for drying purposes. In certain industries the performance of these lamps has been remarkable. Since infra-red rays dry from the inside out, case hardening is avoided and it was for this reason that these lamps have been so widely adopted for drying enamels and lacquers. Because of their record in other industries, widespread interest in the lamps has developed in our industry. It may be said that these lamps can be used for drying anything we may wish to dry and in the case of thick cakes such as rouge cakes they would appear to have a praticularly useful application.

Infra-red drying is not, however, something to be plunged into without careful investigation. In the first place, there is a general misconception that the lamps are capable of accomplishing drying without elevating the temperature of the material being dried. This is not so. The material being dried is elevated in temperature to a point above 160° F. Of course by spacing the lamps widely apart and by using a fan to recirculate cool air, the heat generated by the lamps can be dissipated. However, if all this is done, little advantage is gained excepting in particular instances where case hardening is a difficult problem.

Infra-red lamps have for instance been used with great success in drying tobacco. This is, of course, a large tonnage item. It should be possible to use infra-red lamps in drying freshly cut crude drugs. In drying large volumes the customary practice is to move the product in a thin layer under the lamps on a conveyor belt. If the moisture from the drying material is not harmful or noxious and if it is not present in substantial proportions, it is not necessary to use hoods or exhaust fans. Such a case, however is extremely rare. In considering infra-red drying please remember that you are merely substituting a direct heat source for an indirect heat source. You should carefully consider not only the cost of the installation but also the amount of power required to operate the lamps. The latter factor

We're helping to sharpen the Eagle's claws —

and pleased to play our part!



American Industry gave a rigid and impartial test of N. J. M. Labelrites and Motoair Pumps, during the years when we were producing the first *thousand* of these dependable, precision, time-saving units. Now we have been building many of them for Uncle Sam, to accomplish an important Defense Job.

Their record of satisfaction is the most compelling reason why Labelrites should be given *first* consideration in planning improvements to your present production.

OUR DEFENSE EFFORTS INCLUDE:

Labeling and Sealing of Cartridge Cartons
Gun Firing Applications
Lens Cleaning
Lens Roughing
Lens Polishing
Lens Centering
Angle Correction Units
Special Defense Equipment

Get FACTS.... and you'll get LABELRITES!

NEW JERSEY MACHINE
CORPORATION

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Chicago Office - 325 W. Huron St.

is important in areas where defense industries have created a power shortage. Nevertheless, infra-red rays do have many applications in our trade and one nice thing about this method of drying is that you can buy a dozen or so bulbs and rig up your own dryer with very little expense. As a matter of fact, every laboratory should have an infra-red drying cabinet for testing purposes.

WORLD TWIN TURRET LABELER

The Economic Machinery Co., Brewster, Mass. would like you to investigate their new automatic twin turret labeling machine. This machine is extremely unusual. It will apply body and neck labels and also special neckbands on round containers from six ounces to quarts. Each of the two turrets can be operated independently, since each is in itself a self-contained labeling machine. It's a streamlined job.

UNIT DUST COLLECTORS

The Torit Mfg. Co., St. Paul, Minn. have done a remarkably fine job in developing unit dust collectors for applications, like tablet cleaning, where a centralized dust collecting system may not be economical. This organization has produced not only the usual type of dust collecting unit consisting of fan and air filters, but also has produced a self contained cyclone unit which is highly efficient. The unit consists of the cyclone with a receiving tank and clean-out door and also a fan and filter cabinet. The filter elements are equipped with a shaking device. Hence the major portion of the dust is thrown out of the air stream in the cyclone and the balance is removed as the air passes through the air filters. The use of such a device is certainly indicated in an air conditioned room where it is desired to retain all of the chilled air. By attaching to this small unit an odor adsorber like the unit made by the W. B. Connor Eng. Co., 114 E. 32 St., New York, it would be possible as well to take out noxious odors as the dust free air is returned to the room. These odor adsorbers were described to you previously and consist of activated carbon sells.

WATER STILLS

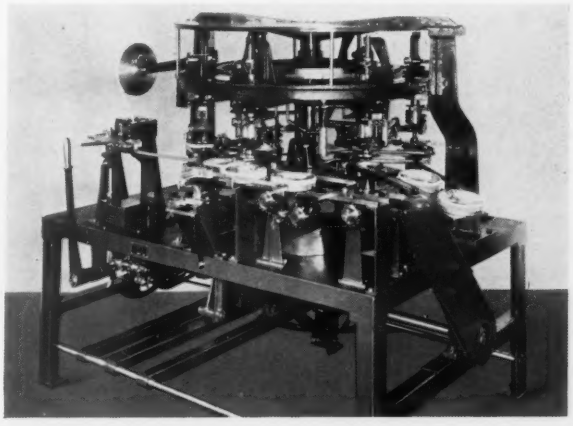
Eclipse Fuel Eng. Co., Rockford, Ill. would like you to check up on their water stills. Many of these automatic stills have been used in laboratories of various kinds and I believe they are made in large sizes as well.

SYNTHETIC RUBBER

I just noticed in a bulletin issued by the Thiokol Co., Trenton, N. J., manufacturers of synthetic rubber for the past ten years that one of their very large oil hoses has just completed ten years of continous heavy duty service and is still in excellent condition. In browsing through the bulletin I noticed that Thiokol blankets are made into seals for gasoline storage tanks. The blanket or seal is fitted into the inside of the tank so that it floats on the surface of the liquid, thus preventing vaporization by eliminating the vapor space. The blanket rides up and down as the tank is emptied or replenished. This application suggests a use on smaller tanks used in our trade for the storage of inflammable solvents.

TAPE SEALER

An automatic can sealer has been developed which seals 40 to 100 cans per minute with scotch tape, depending upon the size of the can. This sealer is used now for a large volume of tobacco tins and is highly efficient for sealing army ration tins, coffee tins, and for other types of telescope cans where preservation of moisture content or freshness is important. The tight seal of scotch tape has proved remarkably successful in preventing moisture loss and in protecting contents against outside deteriorating elements. The apparatus



is custom-built to meet individual requirements and is offered by Minnesota Mining and Mfg. Co. of St. Paul, Minn.

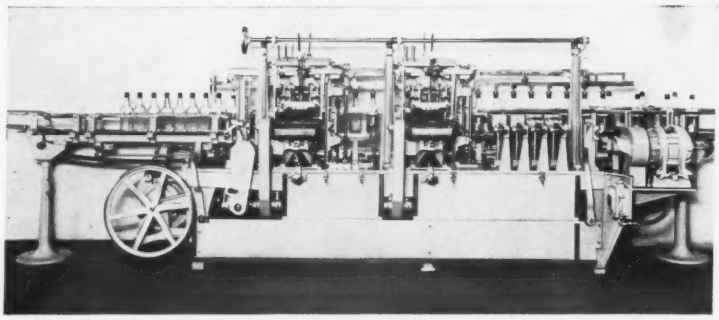
It is obvious that this machine has many uses in our trade. For example, we, because of wartime shortages, are forced to begin using wooden containers like we used to use for pills and ointments. This machine would make it possible for us to seal such wooden containers tightly, enabling us to use them for powder. The machine also is useful for sealing face powder containers. Again you can see a possible application for it in sealing ordinary tin cans which have a tendency to sift at the shoulder.

BLACKOUT TAPE

The Continental Lithograph Corp., Cleveland, Ohio, have introduced a fabric sheet which is supplied in rolls or tape form and which is printed with a phosphorescent material so that it can be seen in the dark. The sheet can be used to outline aisles or stairways. While I am not too much worried about the necessity for blacking out, the idea of using a phosphorescent line either in the form of tape or a paint line for dark warehouses is very good.

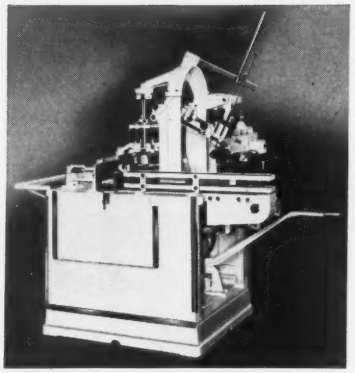
WORLD'S *finest* LABELERS

for DRUG, COSMETIC and PERFUME Manufacturers



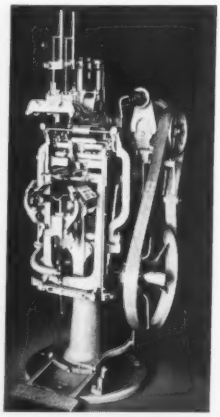
The WORLD Automatic *BEE-LINE* Straightaway Labeler

is for smooth, precise, full automatic application of front or front and back body labels — and neck labels simultaneously if desired — to round, square, flat, oval or panel bottles or flasks. It conducts each container gently, surely and steadily through the entire operation in a bee-line, without stops, detours, collisions, jars or jams. It is ideal for the new light weight glass.



The WORLD Automatic UNI-TURRET Labeler

for high quality, low cost, full automatic labeling of smooth, fluted or fancy containers. It is equipped with patented sliding picker mechanism for gumming entire label surface or any portion of it, as desired. This may be especially advantageous for labeling of fluted or fancy containers. Two individual pressure wipes assure neat, firm, precise labeling.



The WORLD Model S Semi-Automatic Labeler

is World's most flexible labeler. It labels any size bottle from ampoules up. It applies front or back labels, body, neck labels, or labels that go all 'round the bottle.

WORLD LABELERS

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If you require new labelers to meet demands of production essential to the Victory Program, don't fail to get in touch with us. Whatever your labeling problem, we are anxious to render you the utmost assistance.

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Builders of World Automatic and Semi-Automatic Labelers for Every Purpose

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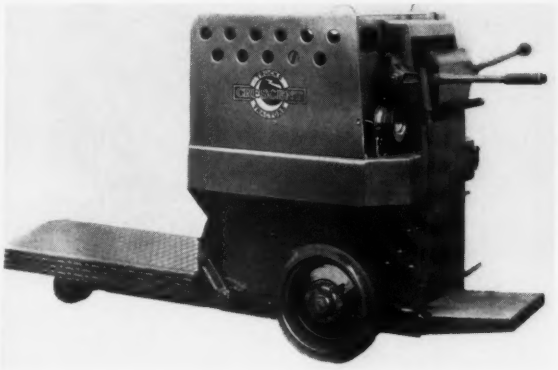
SALT LAKE CITY EL PASO SEATTLE PORTLAND LONDON MONTREAL TORONTO WINNIPEG
SPOKANE VANCOUVER SYDNEY, AUSTRALIA WELLINGTON, N. Z. SAN JUAN, P. R.

IMPROVED POWER TRUCK

Of interest to plants requiring lift-truck facilities is Type "LDLF" of the Crescent Truck Company, Lebanon, Pa., who claim their improved model to be the most economical lift-truck manufactured; this claim is advanced for both first cost and operation. This model, designed for use with 7-inch hand-truck skids, will replace 3 to 5 hand truckers at an operating



cost of one-third the daily wage of a laborer. Truck is operated by running platform under skid; several pumps on foot pedal will raise skid a full 3 inches; load is lowered by means of release lever on dash, controlled by a hydraulic check. This 2,500 lb. capacity model, according to the Crescent people, is available at little more than half the price of other lift trucks. Specification sheets may be had on request to the factory.

CHORE BOY

The Buda Co., Harvey, Ill., have introduced a power operated general purpose gasoline driven truck. This little three-wheeled job is intended for inside factory work and has all of the necessary safety and fire preventive features. It can be operated in narrow aisles for picking up stock and is capable of making a 360° turn within 7′ 3″.

HEATING LIQUIDS AND VISCOUS MATERIALS

A new booklet describes a unique and highly efficient mechanism for heating or cooling of liquids and viscous materials, which also offers mixing, emulsifying or aerating simultaneous with heating or cooling. The unit is known as the Votator. Outstanding features are: (1) Heats or cools *in seconds*, by a patented principle of passing a very thin film of product over a relatively large heat transfer surface. (2) Continuous rapid flow of product through unit. (3) Uniform temperature, accurately controlled. (4) A completely closed system. (5) Simplicity of design, which permits easy cleaning and enables unit to be connected into virtually any processing system. (6) More economy—due to increased speed and efficiency of heat transfer, use of less heat transfer medium, and facilities for simultaneous mixing. The Votator is available in standard sizes and designs. Helpful charts, diagrams, cross sections, and reference tables are included in the booklet. For a copy of the booklet on the Votator Heat Transfer Unit, Address: The Girdler Corporation, Votator Division, Louisville, Kentucky.

STERILAMPS

A number of the boys in the trade have asked me as to the advisability of using sterilamps on bottling and other packaging lines. They have read that sterilamps have been used to sterilize air in laboratories, particularly biological laboratories and ampuling rooms. It has been supposed that if the lamps can kill bugs in a cold room, that it should be able to kill them in tanks. One characteristic of a sterilamp is that it is made of a particular kind of quartz glass which has the property of transmitting all or most of the ultra-violet rays. This is not the case however with glass containers. The lamps can and have been used for sterilizing wide mouth jars, cans, and other containers in which the entire inside area is exposed to the direct action of the rays from lamps mounted above conveyor belts. Those who take particular pride in their factories and use them for advertising purposes can use the sterilamps for these purposes. They can claim without lying that the lamps kill all the bugs in the air around the containers as they pass from one packaging operation to another. Much thought has been given to the possibility of reflecting the rays of the lamps into narrow-necked containers by means of mirrors or lucite transfer rods. Such an arrangement helps to a limited extent but are rendered abortive by the fact that the materials themselves absorb so much of the ultra-violet light.

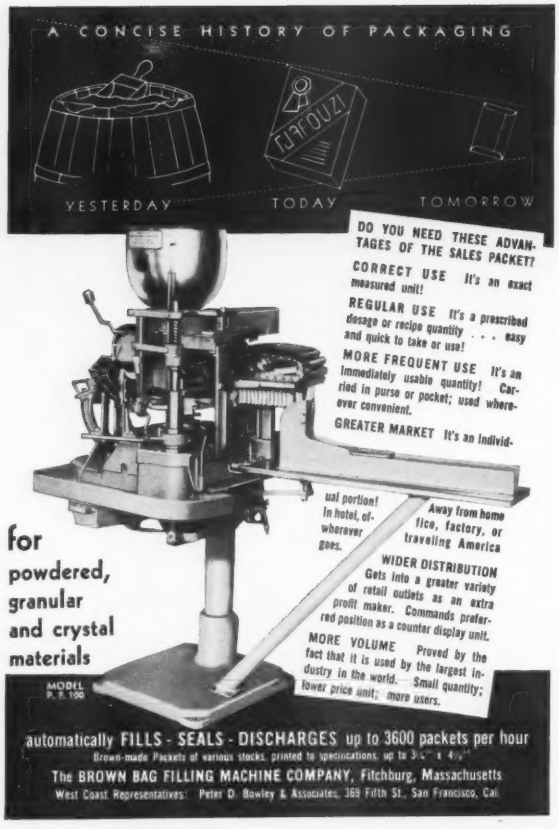
SEND FOR A COPY

Coleman Electric Co., Maywood, Ill,, have announced the publication of a new general catalog dealing with pH meters, spectrophotometers, and the Anoxia photometer which is an invention of Dr. Glenn Millikan of the Cornell Research Foundation.

The Selas Co., Ceramic Eng. Division, Erie Ave. and D St., Philadelphia, have issued a bulletin on microporous porcelain filters for research, control, and production filtrations in the pharmaceutical, food, and general chemical industries.

American Foundry Equipment Co., 555 S. Byrkit St., Mishawaka, Ind., have a revised catalog describing "Dustube" dust collectors which is written as a manual to serve plant engineers in the selection of proper control equipment for specific dust problems.

C. O. Bartlett and Snow Co., 6200 Harvard Ave., Cleveland, O., is distributing its new complete heat engineering catalog which contains a thorough discussion of the principles involved in drying and other technical data which will be of interest to engineers and operating men.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YESTERDAY
TODAY
TOMORROW
DO YOU NEED THESE ADVANTAGES OF THE SALES PACKET?
CORRECT USE It's an exact measured unit!
REGULAR USE It's a prescribed dosage or recipe quantity . . . easy and quick to take or use!
MORE FREQUENT USE It's an immediately usable quantity! Carried in purse or pocket; used wherever convenient.
GREATER MARKET It's an individual portion! In hotel, office, factory, or wherever traveling America goes. Away from home
WIDER DISTRIBUTION Gets into a greater variety of retail outlets as an extra profit maker. Commands preferred position as a counter display unit.
MORE VOLUME Proved by the fact that it is used by the largest industry in the world. Small quantity; lower price unit; more users.
for powdered, granular and crystal materials
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The BROWN BAG FILLING MACHINE COMPANY, Fitchburg, Massachusetts
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Let us put the complete Horm catalog before you so that you can determine exactly which type of filter will best meet your needs.

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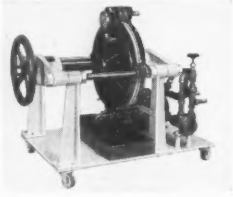

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1—Burt straight line duplex Automatic Labeler.
1—Pneumatic Scale automatic Packaging Unit.
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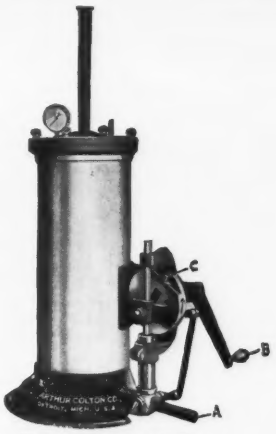
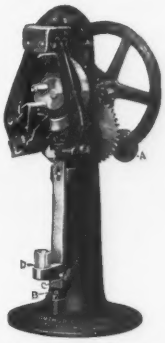


No. 3 Hand Paste Filler



Hand Tube Closer

Foot Power Crimper

Colton Hand Operated Machines

No. 3 Collapsible tube filler (hand operated) for tubes up to 1" x 5½" long.

Hand operated tube closer made in two sizes and styles to seal tubes with the Colton Clipless Closure or to seal tubes for applying clips.

Foot operated crimper for applying final corrugation to the closed end of the Colton Clipless Closure which gives it a decorative appearance as well as greater rigidity to the closed end of tube.

We also furnish this same machine without the crimping jaws for applying clips.

Our catalog No. 11 illustrates a variety of fillers and closers to suit production required. Please make us acquainted with your requirements and capacity, and we will be pleased to recommend machines best suited for your purpose.

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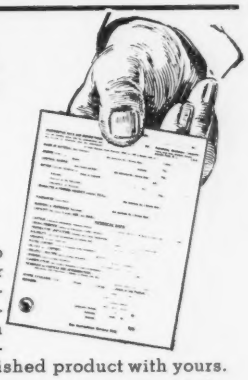

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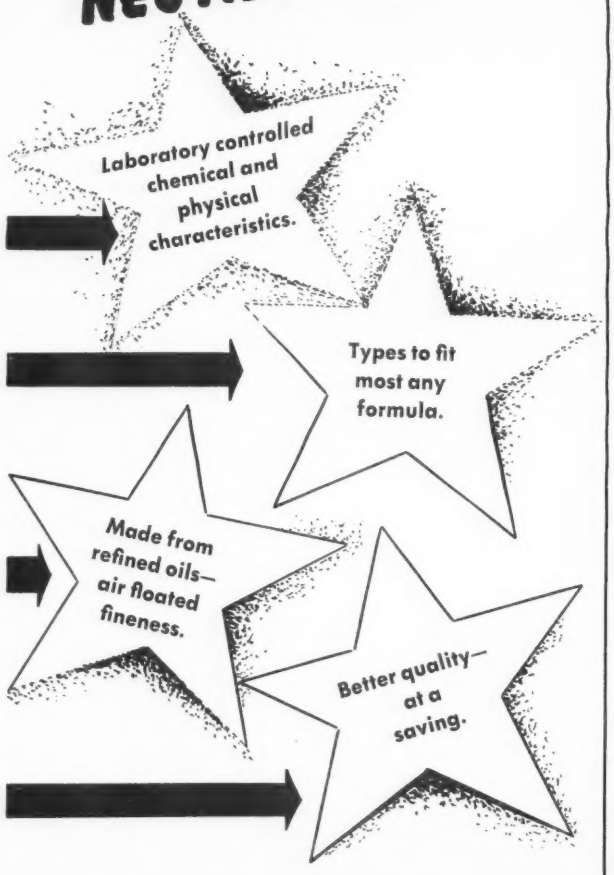
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These expanded facilities and the collaboration we have received from Tombarel Freres of Grasse, France, place us in a very favorable position to render resultful service to perfumers and cosmetic manufacturers who find it necessary to make adjustments to meet changing conditions.

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CUTANEOUS DETERGENTS

A complete and authoritative study on the subject of "Cutaneous Detergents" has been made by Drs. C. Guy Lane and Irvin H. Blank and is published in the Journal of the American Medical Association for March 7, 1942. Since this is so important a subject, we have abstracted it at length.

The limiting surface of the skin is a continuous, relatively smooth layer of dead, flattened, keratinized cells, the last stage of the normal epidermal cell. This outer layer of cells of the stratum corneum is covered by a film of products from the cutaneous glands. This film is a fatty layer which has been proven experimentally to be continuous and free from water. Two fat phases sometimes existed, but no emulsion was ever present. Under normal conditions the surface of the skin is continuously changing, with fresh secretions from the glands reaching the surface.

The surface cells of the skin are composed primarily of proteins, lipids and water. The protein in mainly keratin, which is insoluble in weak acids, weak alkalies and salt solutions, but the skin reacts more strongly to acids than to alkalies. The pH of the normal skin surface is definitely on the acid side, varying from 3.5 to 7.0. There is, however, a great deal of normal variation in the normal skins of different people, as well as differences in various body areas. Most people will classify their skin as either "oily" or "dry."

The soil to be removed from the skin surface can be broadly classified as endogenous, coming from within the body, and exogenous, from without. The endogenous products for normal skin are sweat, sebum and desquamating epidermis.

The composition of sweat is not constant. Total solids seldom exceed 0.5 per cent. and are composed primarily of chlorides, sulfates, and lactates of sodium and potassium, and urea. There may be traces of fat, albumin and phosphates.

The oil-soluble substances on the skin surface come mainly from the sebum and the epidermal cells, with little from the sweat. From 25 to 30 per cent. of the lipid of the skin surface is unsaponifiable, less than one-half of which is cholesterol. Over half of the sterol is present as sterol esters. Neutral fats and fatty acids compose the saponifiable parts.

At this point it must be emphasized that sweat and sebum are not merely soil, to be removed. Both play a part in keeping the skin supple; they may aid in the protection against the invasion of micro-organisms; the sebum may act as a water-repelling film as well as a vitamin precursor. Therefore, proper methods of skin cleansing should not remove all of the sweat and sebum all of the time.

For a consideration of the removal of exogenous soil, it is sufficient to determine only whether the soil is water soluble, oil soluble, or insoluble. Various substances intentionally placed on the skin must eventually be removed by cleansing methods. In this group are included ointments for the treatment of skin diseases, cosmetics such as rouge, and theatrical make-up.

Various processes and methods are utilized for cleansing the skin. Soil can be removed from the cutaneous surface by mechanical means, such as brushes, abrasives, powders, with or without water. Air, by the process of evaporation may also be considered a cleansing agent. When water is used alone it is a satisfactory detergent only for water-soluble products. Mineral oil or vegetable oils sometimes serve as detergents; these will remove oil-soluble, but not water-soluble soil.

Cosmetic cleansers, not using water, include cleansing and cold creams. These materials remove oil-soluble soils by true solution. Creams containing water may also remove some water-soluble materials. With an emulsion cream, it may be stated as a general principle that the cream will dissolve most easily that type of soil which is miscible with the external phase of the emulsion. Oil solvents, such as alcohol, are infrequently used as detergents.

Soap, is of course, the major cleansing agent. Superfatting to reduce free alkalinity is illusory, since reaction does not take place between the neutral superfatting agent and the alkali, either free or formed on hydrolysis. Almost all soaps are made from inorganic alkalies, but within recent years organic bases such as triethanolamine has been used. Soap is believed to clean by emulsification (not saponification) of the oily soil.

New detergents used in place of soap act by the same mechanism.

These methods of cleansing are most important in relation to their effect upon the skin. Water undoubtedly hydrates to some extent the cells of the stratum corneum with which it comes in contact. This hydration is probably at a minimum when the water has a pH equivalent to the isoelectric point of the skin keratin. Mineral oil or other oils seldom have any harmful effect on the skin when used for cleaning; in fact, small amounts left on the skin serve as emollients.

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In addition to our *very white* grades of ISCO SILVER LAKE Talc we now offer new types of Soft Massive Talc, exceptionally suitable for Cosmetic Face Powders.

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ISCO TRINITY Talc
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To make a dependable Syrup of White Pine Compound, N. F., standardize on Hopkins' Pinealco. Therapeutically reliable, uniform in color, odor and flavor. So highly concentrated, a single pound of Pinealco will yield about 20 pints of Syrup.

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Assures snow-whiteness, neutral taste, absence of free alkali, low moisture content and very low residue of alcohol, water and sodium carbonate. Completely dependable uniformity and performance.

HOPKINS' FIJIOLINE

A pure, natural Vegetable compound —semi-liquid, mucilaginous, free of objectionable over-adhesiveness. An economical substitute for such bases as Quince Seed, Gum Tragacanth, Irish Moss and Flaxseed for lotions, wave-sets, etc.

"Quality is remembered long after price is forgotten"

FREE UPON REQUEST

Samples and quotations for any of these Hopkins' Specialties, upon request. We invite correspondence on any problems to which our technical staff can bring its expert cooperation.

J.L.HOPKINS & COMPANY 220 Broadway NEW YORK

Soaps are often accused of being "drying" and superfatting was intended in part to overcome this. However, rinsing sufficient to remove all of the soap from the skin will undoubtedly leave behind very little of emollient agent. Many writers believe that the alkalinity of soap is primarily responsible for its irritating action. Triethanolamine soaps have been recommended because of their lower alkalinity but are apparently no less irritating. Others believe that the fatty acids themselves are the primary cause of irritation, aggravated by small amounts of alkali. It has been shown that the sodium soap of lauric acid is far more irritating than the sodium soaps of any other saturated fatty acids. Unsaturated fatty acids produce more irritating soaps.

The newer detergents are satisfactory skin cleansers, but they have been in use for so short a time that a mass of data concerning their action on the skin has not yet been accumulated. Some that were formerly considered cutaneous irritants have now been shown to be non-irritating when properly made and have been satisfactorily substituted for soap where soap was irritating.

METHYL CELLULOSE

Methyl cellulose is synthesized from highly purified cellulose by interaction with caustic soda and methyl chloride. It is regularly produced in six viscosity types to meet a wide range of use requirements.

For use as a thickener, the 1500 cps. or 4000 cps. types are most economical, but for applications requiring only protective colloid action the lower viscosity types are often preferred.

It is free from insoluble substances or extraneous matter and generally requires no further processing or filtering before use.

Methyl cellulose is a synthetic cellulose ether thickener produced under rigid chemical control of raw materials and reaction product. Reproducible thickening is therefore assured by its use.

Methyl cellulose is stable to heat, light and aging. Solutions retain their viscosity on standing over a wide range of pH conditions and ordinarily do not require a preservative since the ether is resistant to mold growth.

It is neutral, odorless, tasteless and completely inert. It produces colorless aqueous solutions of excellent clarity.

Solutions of methyl cellulose produce clear, tough, flexible coatings on evaporation of the aqueous solution or dispersion. Should added softness and flexibility be required, the addition of 15 to 25 per cent. of the solids of a hygroscopic plasticizer such as glycerine, ethylene glycol, sorbitol or invert sugar will be found particularly satisfactory.

In general, aqueous cellulose ether solutions are compatible with most water miscible organic solvents. For example, water solutions of methyl cellulose can be diluted infinitely with alcohol without precipitation.

On the other hand, the dry product will not disperse in an aqueous alcohol mixture containing in excess of 40% alcohol. It is generally recommended, therefore, that the gum be first dissolved in water in the usual manner and that the desired water miscible material be then added to the aqueous solution. Stable dispersions can be frequently prepared in this manner, whereas efforts to disperse the gum directly in the mixed solvent may meet with little success.

Methyl cellulose is compatible with dilute acids, alkalies, most water soluble resins and wetting agents. A pH range of 2 to 12 will cause no apparent change in solution viscosity, color, solubility, or surface tension properties of the solution.

Methyl cellulose is sold under the trade name of Methocel by the Dow Chemical Company of Midland, Mich., and a descriptive bulletin is available.

COLLOIDAL SULFUR

Appreciation of the fact that colloidal sulfur, owing to its fine state of division, is more active therapeutically than flowers of sulfur, etc., has led to the introduction of many scalp, hair and bath specialties based on the incorporation of sulfur in colloidal form.

According to Rosenthal and Eisenberg, writing in the "Medical Record" (146, 1937, 271-2) good results were obtained with an ointment containing 25 per cent. of colloidal sulfur. Clinical experiments were carried out in the Sydenham Hospital, New York, and it was found that whereas a salve containing 25 per cent. of precipitated sulfur provoked irritation of the skin, the same type of salve based on 25 per cent. of colloidal sulfur was without irritant effects of any kind.

The preparation of colloidal sulfur consists of releasing sulfur from a water-soluble sulfide, by the addition of an acid or an acid salt, in the presence of a colloid such as egg albumen or a gum mucilage, etc. When the acid is added very slowly to the sulfide, the colloidal external phase prevents the sulfur molecules from forming a composite crystalline structure. The mechanism of the reaction somewhat resembles the formation of an emulsion of sulfur in water; just as an ordinary emulsion is broken down by the addition of an excess of acid, so also the quasi-emulsion of sulfur in water may also be broken down by an excessive addition of acids.

An isotonic solution of colloidal sulfur is prepared by the Drug Products Co., Inc., of Long Island City (U. S. Patent 1,980, 236) in the following manner: A solution of 23.5 g. of Na_2S in 50 c.c. double distilled and air-free water is mixed with a further solution of 10 g. of dextrine in 400 c.c. of water. A solution of SO_2 is then carefully added until the critical point of deposit-formation is attained. Finally a quantity of 900 c.c. of water is added and the solution adjusted to a pH value of 7.6.

According to another procedure, 5 g. of $Na_2S.9H_2O$ are dissolved in 45 g. of distilled water, while 2.6 g. of Na_2SO_3 are dissolved in a further 50 g. of distilled water. The two solutions are mixed. Then the white of two eggs is added and the mixture is well stirred for 10 minutes. A solution of 9 g. of hydrochloric acid in 13.5 g. of water is slowly poured in, with continued stirring, and the product subsequently diluted by the incorporation of an additional 75 g. of water. *A. Lewinson, S.P.C.*

TROPICAL PRODUCTS

A correspondent writing in "Soap, Perfumery, and Cosmetics" makes several observations that should be of considerable interest to manufacturers not completely aware of the requirements for sales in hot climates. High temperatures and high or low humidity lead to a large proportion of unsalable stock, partly due to the accelerated effect of age, and partly to unsuitable formulation and manufacture. Items giving the most trouble are perfumes, vanishing creams, and solid brilliantines. The worst problem is in perfumes where the decorative glass stoppered bottle permits evaporation of valuable contents at an extremely rapid rate. The use of a cap instead of the glass stopper would solve the problem, if decorative effect could at the same time be preserved. Cold creams, too, are inclined to harden excessively in hot, dry climates. In general, unless quick turnover is assured, collapsible tube packing is unsatisfactory. Finally, items should be previously tested, in their final packages, in an oven provided with means not only for maintaining temperatures at desired points, but also with controllable humidity

Perfumers Shelf

BERGAMOT OIL

Oil of bergamot, one of the most important substances used in perfumery, has hitherto been obtained exclusively from the Province of Reggio Calabria, where the tree is cultivated along a strip of the coast extending from the northern entrance of the straits of Messina through Reggio and Melito past Cape Spartivento to Brancaleone. It has been commonly believed that the tree could not be successfully cultivated in any other district even though the climate, soil and other conditions were very similar, as they are in Sicily. There is probably no foundation for this belief.

The Reggio supply has often been more than sufficient for the world market, and from time to time considerable stocks have been accumulated, but it is probable that the demand might have been considerably greater but for the extreme fluctuations of price at certain periods which have induced perfumers to seek for substitutes, which were certainly not equal to bergamot oil, but which were less liable to these disturbing variations.

The bergamot, like the lemon, is commonly grafted on bitter orange stock which is more resistant to certain diseases (root rot and gum disease). Its habit and the methods of cultivation are the same as those of the other citrus trees, and it appears probable that wherever the orange or lemon can be successfully grown the bergamot could also flourish. With the present knowledge of the influence of traces of metals, etc., on plant growth, the possibility of the presence of some such substance in the Reggio soil favorable to the tree cannot be excluded. The matter has not been investigated, and if any such substance were found it could certainly be supplied where required.

The method in use for many years for the extraction of the oil from the bergamot fruit has often been described. Briefly, it consists in grating the fruit between two corrugated discs, one fixed and one rotating. The outer surface of the peel is thus ground off, breaking the oil-containing cells and liberating the oil and some water. The pasty mass obtained is placed in sacks and squeezed in a special conical apparatus by the gradual addition of weights. Oil and water flow out and the oil floating on the surface is separated by decantation. The mass remaining in the sacks, when everything possible has been recovered by pressure, is distilled in a current of steam. The distilled oil differs greatly in quality from the expressed oil, for the linalyl acetate, which is the important constituent of the latter, is during the process almost completely hydrolyzed, and the distillate consists largely of the free alcohol, linalool, and acquires also a certain empyreumatic odor. It is commonly supposed that the hydrolysis is due to the action of the steam, but there is some reason to think that it probably takes place to a great extent in the mass before this is submitted to distillation, and that by a different method of working a superior quality could be obtained. *P. E. O. R.*

ROSHA GRASS OIL

Rosha grass is a perennial plant. It attains a height of about 6-8 feet. The aerial parts die in winter. Being very susceptible to frost, its leaves and shoots may dry up even in November when there is early frost, but usually withering starts in December and by the end of January the plant dries up completely. The rootstocks sprout in the spring and by the middle of October the grass is in blossom and cut for distillation.

The flowers contain a higher percentage of oil (1.4 per cent.) than other parts. The leaves also contain about 1.4 per cent. oil, while in the stalks the percentage is as low as 0.03. An acre of grass yields 15-20 lbs. of oil. Frost causes a loss which may amount to 54 per cent.

The plant is widely distributed in India and its use as a fragrant oil appears to date back to an early period. The refined product is palmarosa oil.

CASSIA

Based upon the appearance of the bark, the characteristics of their volatile oil content and their geographic origin cinnamon can be grouped into 7 rather definite classes. The yields and characteristics of the volatile oil (determined by the A. O. A. C. methods) obtained from many shipments of these barks received at New York over the course of 6 years are as follows: *Saigon cassia:* yield 1.5 to 4.0% vol./wt., specific gravity at 25° C. 1.047 to 1.057, optical rotation at 25° C. 0.0° to –0.6°, refractive index at 20° C. 1.605 to 1.612, aldehyde 90 to 98, acid no. 2.2 to 10.1, ester no. 100 to 230. *Honan cassia:* yield 2.0 to 3.1%, specific gravity at 25° C. 1.043 to 1.051, optical rotation at 25° C. 0.0° to –0.6°, refractive index at 20° C. 1.605 to 1.614, aldehyde 96 to 98, acid no. 6.7 to 11.8, ester no. 28.5 to 47.3. *China cassia:* yield 0.75 to 1.5%, specific gravity at 25° C. 1.043 to 1.052, optical rotation at 25° C. 0.0° to –1.0°, refractive index at 20° C. 1.606 to 1.611, aldehyde 95 to 97, acid no. 3.9 to 14.9, ester no. 39 to 130. *Kwongsai cassia:* yield 0.8 to 1.49, specific gravity at 25°

GUENTHER SURVEYS HELP SPEED WESTERN HEMISPHERE PRODUCTION OF CITRONELLA

Harvesting Java Citronella

Weighing Citronella Plant Material

Interior of Medium Size Distillery

Clarification and Filtration of Oil

WITH the tide of conquest spreading in the Far East, and with every indication that this Nation is preparing for a long, hard war, all eyes turn hopefully to America—to North, Central and South America—as the possible future source of much needed raw materials and essential oils. Already, responsible Government agencies and far-seeing agriculturists are working hand in hand in a determined effort to bring about commercial production of those materials most adaptable to the soils and climates of our two American Continents.

Right now, its importance to National Defense focuses particular attention upon our need for citronella. This oil comes to us in normal times, chiefly from Java and Ceylon, at the rate of over two and a half million pounds annually! Its constituents, geraniol and citronellal—the latter a principal source of synthetic menthol, citronellol and hydroxy-citronellal—find their way into countless technical products, soaps, cosmetics and most perfumes. Fortunately, oil citronella can be and is being produced successfully in this Hemisphere. In Central America, production is reaching a substantial scale; in the West Indies, new plantings are well under way. BUT . . . citronella grass is not the hardiest of plants. *Constant, expert care under proper conditions of climate and soil*—these are key factors in its successful production, or for that matter, in the success of any American-produced essential oils.

With all these facts in mind, it is not difficult to appreciate the incalculable value of our Company's essential oil surveys to those whose responsibility it will be to put this American program of essential oil production into high gear. These studies, based upon personal, on-the-spot investigations by our Chief Research Chemist, Dr. Ernest Guenther, bring to American producers the most complete, authentic data available dealing with plant cultivation, soil, climate and precise methods of extraction employed in the hundreds of foreign producing centers to which his work has taken him. And they bring speed-up to a program vital to our industry's future.

FRITZSCHE BROTHERS, Inc.

PORT AUTHORITY COMMERCE BLDG., 76 NINTH AVENUE, NEW YORK, N. Y.

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BOSTON CHICAGO LOS ANGELES ST. LOUIS TORONTO, CANADA MEXICO, D. F.

FACTORIES AT CLIFTON, N. J. AND SEILLANS (VAR) FRANCE

The following brief excerpts from an article by Dr. Guenther on JAVA CITRONELLA OIL just published in "SOAP", illustrate the timeliness and value of this work now that serious effort is being directed toward relieving American dependence upon European and Far Eastern sources of essential oils:

"... The plants, recognizable by their broad leaves, require good soil and much care in growing and cultivating ..."

"... Altitude, climate and soil conditions profoundly affect the vitality and life span of the plant as well as yield and quality of the oil, particularly its citronellal content ..."

"... For a long time citronella was considered a very sturdy grass which could get along even on poor soil. This belief caused many costly errors ... because such soils are quickly exhausted ..."

"... Citronella grass grows in the plains as well as at altitudes up to 2000 feet or more ... Rich, alluvial soil at a height of about 600 to 700 feet and in a humid climate would probably offer most favorable conditions for good yield and quality of oil and also guarantee sufficient longevity of the plantings ..."

"... In lower regions the grass grows very slowly during the dry season with constant danger of dying off if cut in the beginning of or during that period ..."

"... sandy soils on which the grass does not grow too high offer the natural precondition for a good oil; besides, such soils are less afflicted with weeds. Deep sand, sufficiently rich, is often better for certain grasses than loamy or even fertile soil ..."

"... When grass grows too quickly, the formation of oil becomes a secondary function ... It is more advantageous to obtain a higher percentage of oil in a smaller amount of grass because bulk of grass increases cost of transportation, labor and steam ..."

"... Most producers seem to be impressed by an abundant yield of grass rather than by a meager growth and a better yield of oil ..."

"... After being cleared of trees, the land is burned over and plant holes dug. If a planter can afford extra labor, the field, after being burned, should be gone over with a mattock. The more intense the cultivation, the more favorable the results ..."

"... Since the grass requires a fairly large amount of moisture, planting must take place only during the rainy periods ... new grass fields are usually laid out ... during the first part of the rainy season ..."

"... Planting material ... is obtained by dividing old clumps ... it is difficult to cultivate from seed ... Wet planting material ... easily spoils ..."

"... On good soil, the planting distance should be three by three feet; it may be less on poorer soil ..."

"... It is necessary to plant the cuttings rather deep because the clumps easily work themselves out of the ground. Hilling up, loosening of the soil and weeding are advisable in order to improve the yield and maintain the plantation ..."

"... With regular cutting at intervals of about three months, starting from the beginning of the second year after planting, the plantation should be discontinued after the fourth year because the sereh (citronella) grass is rather soil exhausting and any prolongation would be detrimental to the soil, the plants, the yield and quality of the oil ..."

"... Aside from exceptional cases, cultivations older than five years are scarcely profitable ..."

"... It is very important to regulate the cutting time in order to increase the yield of the planting ..."

"... The best time for cutting seems to be when a part of the stem bears six adult leaves with the seventh leaf in a rolled up position ..."

ESSENTIAL OILS FOR THE AMERICAS?....

TO industry, agriculture and production throughout the world, this war has already brought shifts and changes that stagger the imagination. In the greatest mass migration of all times, China has moved her industries, her equipment and millions of her people from her captured cities of the East, across hundreds of miles to the relative safety of her central highlands, — an example of fortitude and determination that has amazed the whole civilized world. Russia, too, in the brief space of a year, has transferred her heavy industries a thousand miles to points behind the mighty Urals. And here in this country, an industry capable of producing 5,000,000 motors cars annually turns its *entire* productive capacity over to the manufacture of airplanes, armaments and tanks . . . and does the job in a mere matter of *months!* We can only guess at the happenings in Axis countries, but there, as elsewhere, man's ingenuity and resourcefulness in meeting the exigencies of war should make engrossing study once these facts are fully brought to light.

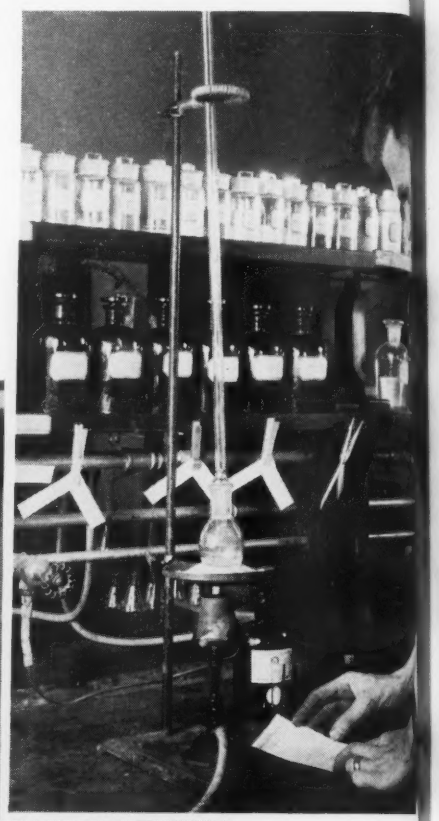
It will be remembered that America's great chemical industry—today, self-sufficient and in many respects totally independent of foreign sources of supply—was born of the last World War. Might not world-moving events and the analogous predicament of our own industry bring to our Western Continents large scale production of much needed essential oils? Certainly, if Government aid and the efforts of private enterprise are any criterion, we are closer to a realization of this than many of us dare to believe. One thing we do know—and we say this unboastfully—is that the detailed technical data on the cultivation, handling and production of essential oils, gathered first-hand by Fritzsche Brothers' investigators during years of intimate contact with world centers of supply, now provide invaluable guidance to those pioneers whose work will bring essential oil production closer and closer to the American manufacturer and consumer. We are proud of this contribution to their effort.

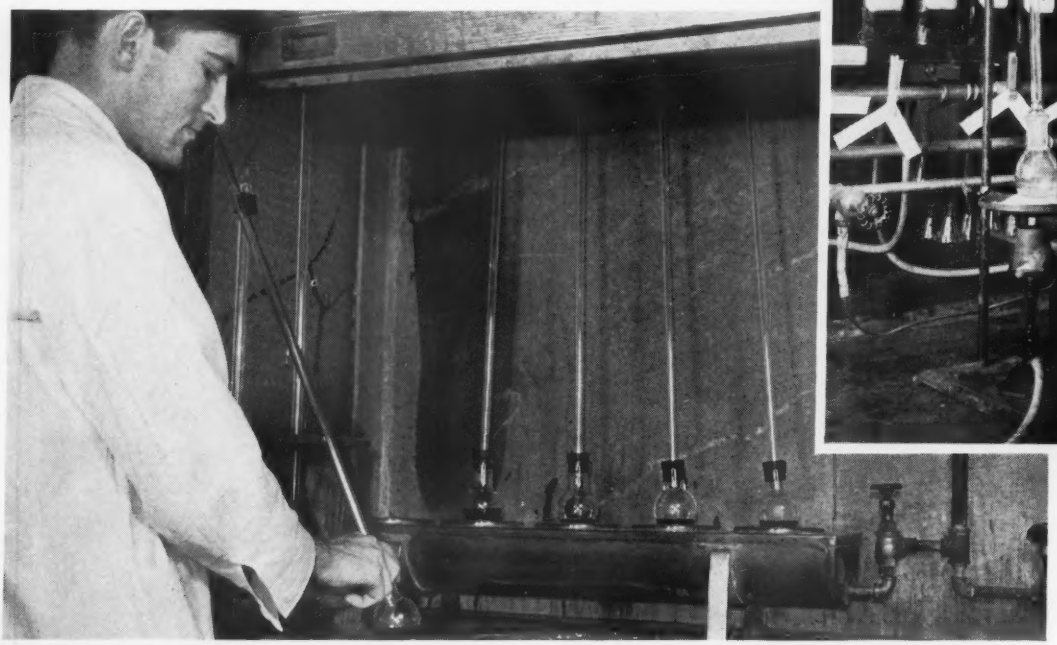
FRITZSCHE BROTHERS, Inc.

BACKGROUND VALUES . . . a PART of the product, APART from

SUB-STANDARD or adulterated materials could never elude the vigilance of our Control Laboratories. Here sample lots of all materials entering our plant or processed by our factory are carefully checked and double-checked before their release for compounding or for general sale.

Several of the assays employed — acetylation, saponification and titration — are illustrated in the order mentioned. These procedures are important in estimating the percentage of certain constituents (the aldehydes, ketones and esters), in determining the acid value of essential oils, and in checking the conformity of an





oil of undetermined grade with the accepted specifications of a given standard. Acetylation is used in determining the percentage of alcohol (menthol in peppermint oil; geraniol in citronella, etc.); saponification is used in conjunction with titration for ester determinations; titration is used for determining acid values, ester values and the aldehyde content of a given oil.

These are but a few of the checks by which variation of F.B. products is reduced to the narrowest possible margin . . . another FRITZSCHE feature, a PART of its products, APART from their price!

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Headquarters for ESSENTIAL OILS • FLAVORS • AROMATIC CHEMICALS • PERFUME RAW MATERIALS

C. 0.983 to 1.051, optical rotation at 25° C. 0.0° to −3.5°, refractive index at 20° C. 1.553 to 1.614, aldehyde 60 to 98, acid no. 0.9 to 8.4, ester no. 12.8 to 56.1. *Korintji cassia:* yield 1.0 to 2.5%, specific gravity at 25° C. 1.025 to 1.038, optical rotation at 25° C. −2.7° to −4.8°, refractive index at 20° C. 1.587 to 1.600, aldehyde 88 to 92, acid no. 5.2 to 10.8, ester no. 49.8 to 99.7. *Batavia cassia:* yield 0.6 to 1.9%, specific gravity at 25° C. 1.023 to 1.034, optical rotation at 25° C. −1.4° to −4.8°, refractive index at 20° C. 1.582 to 1.596, aldehyde 78 to 90, acid no. 3.9 to 10.0, ester no. 63 to 131. *Ceylon cinnamon:* yield 1.2 to 1.3%, specific gravity at 25° C. 1.017 to 1.030, optical rotation at 25° C. 0.0° to −0.7°, refractive index at 20° C. 1.579 to 1.589, aldehyde 66 to 76, acid no. 3.98 to 10.0, ester no. 127 to 145. Oil cassia buds were also analyzed with the following results: yield 0.8 to 1.6%, specific gravity at 25° C. 1.032, to 1.047, optical rotation at 25° C. 0.0° to −1.0°, refractive index at 20° C. 1.595 to 1.610, aldehyde 87 to 97, acid no. 2.7 to 7.8, ester no. 27 to 82. The volatile oil obtained from these barks and buds must not be confused with the volatile oil official in the U. S. P. XI as oil of cinnamon which is obtained from the leaves and stems of *Cinnamomum cassia.*—*J. F. Clevenger. J. Assoc. Official Agr. Chem.*

PERFUMED HYPOCHLORITE SPRAY

Workers at the National Institute for Medical Research have examined the question of "covering" the odor of sodium hypochlorite solution used as a spray in air-raid shelters. They found that the two mixtures detailed below are resistant to the chemical action of the hypochlorite, do not affect the bactericidal action of the mist and are non-toxic in an effective concentration. The mixtures are:—

	A	*B*
B-naphthyl methyl ether (neroli)	1 gm.	
Trinitro-tertiary-butyl-xylene (synthetic musk)		1 gm.
Cetyl alcohol	1.5 gm.	1.5 gm.
Carbon tetrachloride	10 mils	10 mils
Sulfonated castor oil	15 mils	15 mils
Water to	100 mils	100 mils

The dilution required is 1 mil of either A or B to 100 mils of 1 per cent. hypochlorite. After standing, the mixture of perfume and sodium hypochlorite solution should be shaken slightly before use. *J. E. Lovelock and O. M. Lidwell, Lancet, 1941, 2, 746.*

SYNTHETIC YLANG

Ylang Artificial 1440 as a substitute for the practically unobtainable Canaga and Ylang Ylang, is being offered by Van Dyk & Co., Jersey City.

HEAVY METALS IN OILS

The detection of 0.0004% zinc, 0.001% copper and 0.003% lead in essential oils, with application of only 0.25-0.5 cc. of sample, is effected by direct addition of a 6 mg.% dithizone solution in carbon tetrachloride to a dilution of the essential oil in carbon tetrachloride in the ratio of 1:1. The disturbing influence of old oxidized oil is excluded by the addition of a small amount of pyrogallol. The method compares favorably with the sodium sulfide of the DAB 6 and the usual micro-analytical dithizone method with aqueous metal salt solutions.—*L. Fuchs and E. Soos. Deut. Apoth. Ztg.*

CAPSAICINE FROM TABASCO

Tests indicate that the whole tabasco pepper contains about 0.4% of capsaicine, distributed uniformly throughout the fruit and it is recommended that the domestic tabasco pepper be included in the Pharmacopoeia in place of or in addition to capsicum. *J. Am. Ph. Assoc.*

SULFA DRUG AND DYSENTERY

A new "sulfa" drug that very nearly sterilizes the intestinal tract and gives startling cures in dysentry.

This powerful cousin in the "sulfa family" is succinyl sulfathiazole, developed by Dr. Edgar J. Poth and his associates, Drs. F. Louis Knotts, James T. Lee and Frank Inui, of the Department of Surgery, Johns Hopkins Medical School. It is reported in the February issue of Archives of Surgery.

In human beings the drug reduces the number of bacteria in the large intestine toone-millionth of its normal population, or even less. Relatively so few organisms remain that the danger of peritonitis or deep abscesses after operations on the large intestine is tremendously reduced.

Succinyl sulfathiazole does not produce severe toxic effects. On the average, only 5 per cent. of the drug is absorbed from the gastro-intestinal tract.

HEMOPHILIA TREATMENT

Frozen dried blood plasma is being used in place of whole blood in the treatment of hemophilia. Plasma has the same ability as whole blood to shorten the clotting time; in addition, it is more readily available than whole blood, since it can be stored for prolonged periods and does not need to be typed or matched to the patient's blood.

BISMUTH SUBCARBONATE

Alstead tried to determine the value of bismuth carbonate in relieving the pain of gastroduodenal disease and the fate of the salt in the stomach. His *in vitro* and *in vivo* experiments do not suggest that therapeutic doses of bismuth carbonate protect the gastric mucosa. After administration the salt collects in the most dependent part of the stomach and tends to adhere to a small area of the mucous membrance in the prepyloric region. The ulcer-bearing area of the stomach is rarely affected. Bismuth carbonate may exert an astringent action on the empty stomach, but even under favorable conditions this action is slight. In practice it must be considered negligible because of the minute amount of bismuth in solution with the mucoprotein of gastric juice. When a gastric astringent is required tannic acid, in the form of glycerin of tannic acid, is more reliable. The antacid effect of therapeutic doses of bismuth carbonate is trivial or entirely absent. Although large doses produce appreciable changes in gastric acidity, the changes are transient, and the side effects of such quantities, especially constipation, cannot be disregarded. In gastroduodenal disease bismuth carbonate is no more valuable than powdered milk or lactose in relieving pain. *Lancet., vol. 2, p. 420, 1941.*

PHENYTOIN SODIUM

Phenytoin sodium given in not too large doses and combined with phenobarbital is effective and free from noxious effects. It is indicated in cases of severe grand mal epilepsy in which medical control is possible.

N. N. R. ZINC PEROXIDE MEDICINAL

Zinc peroxide has been accepted for inclusion in New and Non-official Remedies. Specifications are for a mixture consisting essentially of zinc peroxide, with varying amounts of zinc oxide and zinc hydroxide. The zinc peroxide content is not less than 45.5 per cent., equivalent to not less than 7.5 per cent. of available oxygen. For use, the powder is sterilized in small quantities by heating in a dry oven for four hours at exactly 140° C. and is made up with sterile distilled water to a smooth creamy suspension. It is used in preventing infection in wounds.

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ADVANCING THERAPY

VITAMINS

Last September a drive was initiated by the Ministry of Health and the Department for Scotland for the collection of rose hips, with the idea of making from these fruits a syrup which would be a rich source of *vitamin C* and would, to a considerable extent, take the place of orange juice for infants. Two hundred tons of hips were collected and have now been converted into syrup. The syrup contains 200 mg. of vitamin C, ascorbic acid, in 100 ml.; the syrup is attractive to the taste, and infants and young children will take it readily. The following table compares the vitamin C content of rose hips with that of common food substances.

Substance	*Mgm. of Ascorbic Acid per 100 Gm.*	*International Units*
Rose Hips (fresh)	350	7,000
Parsley	175	3,500
Black currants	100	2,000
Lemon juice, fresh	60	1,200
Spinach	60	1,200
Turnip greens	60	1,200
Broccoli	50	1,000
Orange juice	50	1,000
Strawberries	50	1,000
Watercress	50	1,000
Cabbage	40	800
Grapefruit juice, fresh	40	800
Cauliflower	30	600
Lime juice	30	600
Tomatoes, ripe	30	600
Turnips	30	600
Gooseberry	25	500

The figure given above for rose hips refers to the fruit of *Rosa canina* (dog rose) and allied species, but it would seem that some varieties yield even higher ascorbic acid figures. Thus, it has recently been stated that the hips of *Rosa rugosa* contain as much as 777 mgm. of ascorbic acid per 100 gm. of fresh pulp. As the ascorbic acid content of dried rose hips is less than that of the fresh fruit, it is preferable to preserve the fruit in the form of a confection.

Payne and Topley determined the minimal dose of *vitamin C* in the form of a black currant puree as a substitute for orange juice. The saturation level of ascorbic acid in children suffering from more or less marked deficiency was reached by the administration of synthetic ascorbic acid; then a puree of black currants was given as a dietary supplement, and the level at which saturation could be maintained was determined. The daily maintenance dose of the puree varied from 15 to 6 mg. of ascorbic acid to 14 pounds of body weight according to age, corresponding to an average daily dose of 1½ to 2 ounces of the puree per child.

Meller studied the effect of *vitamin E therapy* in 9 patients with amyotrophic lateral sclerosis, 5 with primary muscular atrophy and 12 with multiple sclerosis. The 12 patients with multiple sclerosis experienced no benefit from intensive vitamin E therapy. Of the other 14, 3 apparently recovered, 7 showed definite improvement, and 4 obtained no benefit. Large doses given over a long period of time were required for improvement to ensue.

The effect of *vitamin K* on the prothrombin level in 26 non-hemorrhagic diseases has been studied and the results indicate that prothrombin levels may usually be increased to substantially normal levels.

A deficiency of *vitamin P* may exist in man even when he has been taking large doses of ascorbic acid for prolonged periods. Its clinical manifestations include pains in the legs on exertion, pain across the shoulders, weakness, lassitude and fatigue. It is invariably associated with a much-decreased capillary resistance and may be characterized by the development of spontaneous petechial hemorrhages, especially in areas exposed to pressure. It has not been found to be accompanied by any hematological abnormality. It responds to treatment with vitamin P. The precise chemical nature of the vitamin remains to be determined.

SULFONAMIDE THERAPY

Sulfonamide E.O.S. is a new British sulfonamide derivative made by heating sulfanilamide with an aqueous solution of sodium acetaldehydebisulfite. The compound is the N-ethyl sulfonate. The drug is said to be far less toxic than other sulfanilamide derivatives, is almost entirely free from unpleasant by-effects, and is soluble up to 40 per cent. It is suggested as a general safe prophylactic.

Two new derivatives of the sulfonamides are *sulfapyrazine* and *sulfasuxidine*. The first is very closely related to the quite new sulfadiazine but is slightly less toxic and more effective than all others in the treatment of *pneumonia*. Sulfasuxidine, or succinyl-sulfathiazole, has specific effect on the bacteria causing infections of the *gastro-intestinal tract* and is said to be less toxic than sulfaguanidine used for similar ailments.

Veal and Klepser treated more than three hundred *infected wounds* by the local implantation of sulfanilamide powder. All types of organisms were affected. If the sulfanilamide was applied daily, the number of bacteria diminished until the wound was practically sterile after five to eight days of treatment. Systemic toxic reactions or the cyanosis seen so frequently after the oral or the parenteral administration of sulfanilamide was not observed in the patients treated locally.

Guerra and Fuentes treated 25 patients with *chancroid* with sulfanilamide powder. Healing took place in four days

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to two weeks. The treatment is harmless, painless, non-allergenic and economical and pain is relieved in the first twenty-four hours of treatment.

Sulfathiazole has been used locally in the treatment of 190 patients with *cutaneous pyrogenic infections.* Sulfathiazole in an oil-in-water emulsion proved effective for the treatment of primary superficial infections of the skin, including impetigo, infectious eczematoid dermatitis, follicular impetigo and superficial ecthyma. It was equally effective for acute secondary infection, pyrogenic complications of fungous infection and of dermatitis venenata. Sulfathiazole ointment was useful for the treatment of chronic deep ulcers of the skin and the subcutaneous tissue. There was no evidence of absorption of sulfathiazole and no local or general toxic reactions.

Sulfapyridine has been previously used against *bubonic plague* infections in mice. The use of sulfapyridine, sulfathiazole, and anti-plague serum in human cases is now reported. Even in severe cases, with septicemia present at the outset, all three forms of treatment reduced the mortality rate to 50% as compared to 95% in the controls. It was thought that larger doses of the sulfanilamide drugs would reduce the mortality still further.

Fifty-six patients with subacute and chronic *osteomyelitis*, aged from 2 to 70 years, were treated with sulfathiazole. In 53 cases, there was healing by primary intention, with an average healing period of 21.6 days.

Sulfadiazine is the most effective of the sulfonamide compounds in treating experimental *colon bacillus infection* in mice, and would seem to be the drug of choice in treating E. coli tissue infections in human beings.

Sulfonamide derivatives, especially sulfathiazole, control infection in *pyelonephritis*, provided the urinary retention is relieved.

Holm encountered a case of *blackwater* fever in northern Michigan and successfully treated the patient with sulfanilamide. No reports of the previous use of sulfanilamide for blackwater fever are to be found.

CALCIUM GLUCONATE ANESTHETIC

Calcium gluconate injected parenterally is a useful local anesthetic in correct concentration. It is particularly useful when other injections are to be made, when the needle may be left in place for the following substance.

ANTI-DIABETIC

The isolation from a Puerto Rican plant of crystalline substance that exerts an effect similar to insulin on diabetic animals and on man and possessing the advantage of being readily given by mouth instead of only by injection, was described by Dr. Gilberto Rivera of the Tropical School of Medicine of the University of Puerto Rico, San Juan.

While early studies show that the substance extracted from the plant has an effect in lowering the blood sugar in animals and in man, Dr. Rivera emphasized that "it is not recommended that this plant, or the crystalline substance isolated from it, be used for the treatment of diabetes in human cases until a more complete study of its toxicity and possible value has been made."

MORPHINE SUBSTITUTE

A non-habit-forming substitute for morphine was announced to the Federation of American Societies for Experimental Biology. The new drug is 1-methyl 4-phenyl-piperidine 4-carbonic acid ethyl ester.

It has proved satisfactory and safe on more than 800 human beings, most of whom would have needed opiates. No evidence of addiction had followed prolonged use. In small doses it had made patients comfortable after operations, and had relieved visceral or digestive pain, and arthritis, nerve and vascular system pain.

In large doses drowsiness and sleep take place. Some of the users showed euphoria, the medical name for feeling gay. In about 5 per cent. of the cases there was temporary dizziness and nausea.

STORING ANTITOXINS

Antitoxic serum can be successfully reduced to powder by evaporation at temperatures not exceeding 36° C. with full retention of potency even after the dried material has been kept at room temperature for long periods. The addition of 0.4% of sodium citrate prior to drying gives a more readily soluble product and the presence of 0.1% of p-chloro-m-cresol insures sterility.

Certain biologically active materials such as toxins are very much more stable in the form of dried ammonium sulfate precipitates than when in liquid form. Storage experiments indicate that this method is of general applicability to all sera, the normal concentration of which includes a final ammonium sulfate precipitation stage. Solutions are made up to tonicity with sodium chloride and the pH adjusted before use.

B.P. STERILIZATIONS

The methods of sterilization described in the Fourth Addendum to the British Pharmacopoeia differ in several important respects from those previously recognized, the main changes being:

1. The use of bactericides is described;
2. The process of intermittent heating, known as tyndallization, is omitted;
3. A new process, involving heating once with a bactericide, is recognized;
4. The method of dispensing a dry powder, to be dissolved in sterile water immediately before use, is used for several substances in addition to those previously dealt with by this method.

ACRIFLAVINE FOR TULAREMIA

Loria treated with acriflavine 1 patient with acute and 2 with chronic tularemia. The results justify further investigation to determine the true value of the drug. Each of the three patients is well, has gained weight, and is back at work. The acriflavine probably acted as a bacteriostat, inhibiting the growth of the organism sufficiently to give the host time to increase the antibodies to the point of overcoming the infection.

BACTERIOSTATIC SILVER

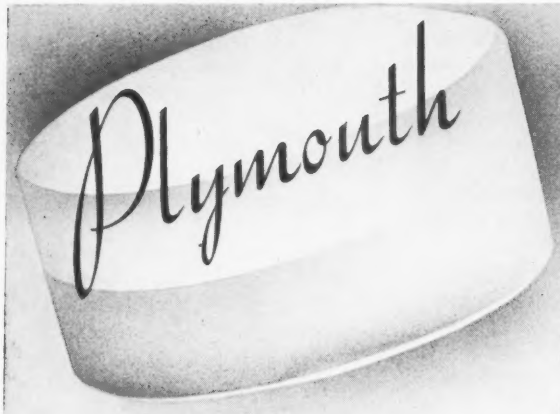
There is ample evidence to show that extremely dilute solutions of silver salts are powerful bacteriostatics. The easiest method of obtaining a solution for injection would be to dissolve the silver nitrate in sterile water immediately before use. A solution of 1 in 1000 destroys most organisms and even 1 in 10,000 prevents their growth. One part of ionized silver in 20,000,000 parts of distilled water kills bacteria.

STYPTIC

Rabbit thrombin, a substance which aids coagulation by the instant precipitation of fibrin, has proved of distinct value as a local hemostatic in small wounds. The preparation is a dry powder and is most effective when applied directly to the bleeding site. A solution may also be employed and gauze bandages impregnated with thrombin would seem to be likely of success in controlling bleeding from wounds on the extremities.

WHALE OIL FOR ULCERS

In Trinidad it was found that whale oil mixed with vaseline is superior to cod liver oil for healing and controlling the odor of tropical ulcers.



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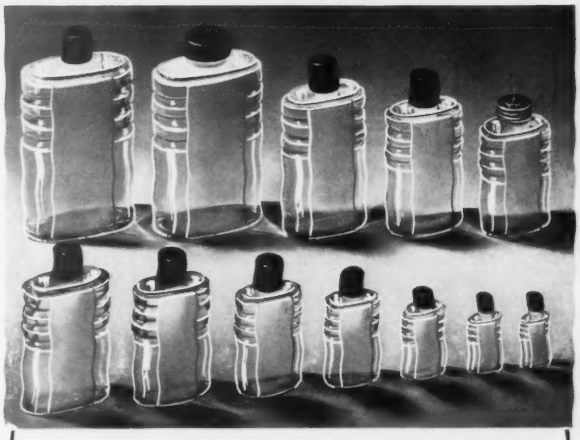

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READERS' QUESTIONS

TALCUM POWDER: I have been trying in a small way to make a toilet talcum powder in order to get the effect of some of my perfumes in a powder of this type and have used 15% magnesium carbonate, 2% magnesium stearate, 1% perfume oil and the balance a 600 mesh No. 1 Sierra talc. My procedure has been to first work up the perfume oil with the magnesium carbonate, let stand over night until thoroughly absorbed, then combine with the other materials and sift; but after filling sifter top talc bottles with the completed powder I find it will not sift well, but lays together and clogs up the openings of the sifter cap. Thinking 1% might be too much perfume oil, I tried again with ½% of oil, following the same procedure, but still the powder would not sift and I am wondering if it could be possible the talc could have absorbed moisture, or if I am not using the right grade of talc for this purpose as I also find just the talc itself will not sift well through the sifter top bottles, so have concluded that is where the trouble lies.

If you have any suggestions to offer I would be pleased to have them and I would also be glad to have you advise just how fine a mesh is necessary through which to sift a powder of this type. I am using U. S. P. quality of magnesium carbonate light and U. S. P. magnesium stearate. I want to make a first class product. San Francisco.

Occasionally we meet this type of problem, based upon a desire to make a good product, in which the raw material selected is too good for the purpose. Another variant of the same thing enters into this question, namely, the use of too much of a good thing. In the first place, the talc you are using is too fine. Three hundred mesh is about as fine as is required in good face powders, more than fine enough for your body powder. Moreover, the intimate mixture of pigments and clays along with talc in face powders to a large extent prevents the cohesion of particles that bothers you by interspersing harder, non-cohesive particles, within the talc. Try coarser grades that you may find suitable. Too much of a good thing is illustrated by the excess magnesium carbonate you are trying to use; ten per cent. is a maximum, five per cent. is plenty in most powders.

MASCARA: We have been using a Triethanolamine, Stearic Acid base for cake form mascara. Now that Triethanolamine is becoming increasingly hard to obtain we are looking for a substitute base to take the place of these two ingredients. What do you suggest?

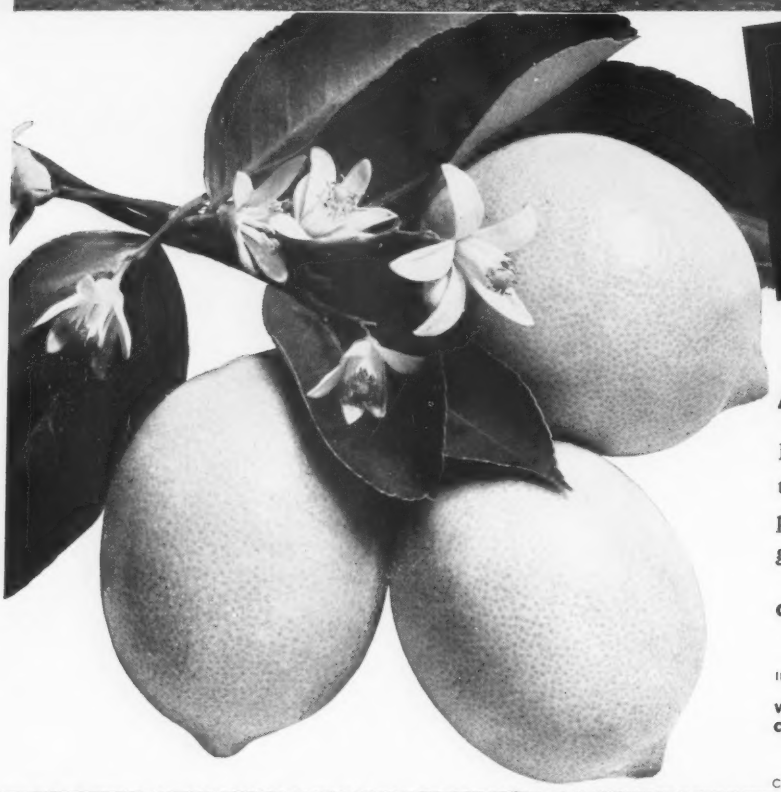
It must be something that does not sting the eyes. It must be something that can be melted and mixed with waxes. Our preparation is in a liquid form until poured into molds. Please give us any information that you may have and oblige. Chicago.

This business of substitution has long since ceased to be anything like a game of hide and seek, so that now we don't know if advice we can give as of this date will mean anything at all in as little as one month. In the first place, a direct substitute for triethanolamine, in several ways superior to it, is Amino Glycol, which combines with stearic acid in the same way as the organic alkali you now use, to form an easily fusible soap that does not sting the eyes. Even better, we believe, is the use of glyceryl monostearate (containing an emulsifying agent) in place of triethanolamine stearate. To increase the ease with which the moistened cake may be rubbed off onto the brush, it may be advisable to include about five per cent. of Amino Glycol stearate.

SHAMPOO: Sometime ago I purchased your book "Modern Cosmetics." I understand calculating the percentage of mixtures, but the book seems to be just a little confusing about the quantities required in making shampoos. Your formula on page 292, formula No. 2. COCONUT OIL SHAMPOO (Hot Process) is as follows:

Coconut Oil	*10.0 %*
KOH	*5.38%*
NaOH	*0.5 %*
Glycerine	*12.65%*
Oleic Acid	*14.00%*
Water	*56.72%*
Perfume	*0.75%*

I desire to make a 500 cc. formula. Is it correct to figure the alkali required from the 500 cc. or from the 50 Gms. of Oil? and would not the other ingredients be figured on the same basis?



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I have made some nice looking shampoos from your book, but I am inclined to believe they are a little harsh on some scalps. Kansas City.

Formulas for cosmetic preparations are seldom critical, so that a great deal of leeway in measurements is permissible. In "Modern Cosmetics" formulas have been calculated in every case to make 100 parts *by weight* of the preparation; if 100 parts by volume were intended, the formula would read, "water to make 100 parts." Yet the tolerance is such that it is usually quite safe to measure all solids by weight and all liquids by volume, provided that the same units are used throughout, that is, ounces or pounds for solids, fluid ounces (or the equivalents in pints, quarts, or gallons) for liquids. The metric system is more convenient, grams being the weight unit, cubic centimeters (or more properly milliliters) being the volume measurement. Thus, in making up 500 cc. of the above formula, you would be safe in multiplying each ingredient by five, and then adding water, if necessary, to the final product to bring the volume to 500 cc.

Formulas for shampoos and other mixtures requiring exact neutralization can never be exact because of the variation in raw materials (by the way, how's your stock of coconut oil). To make sure that the final soap solution does not contain too much free alkali it must be tested with phenolphthalein. Stir in boric acid until only a faint pink color results.

QUICK-DRYING WAVE SET: I wish to prepare a quick-drying wave set, avoiding, if possible, the use of expensive gums. Have you come across any new raw materials recently that offer promise in this field? Denver.

We have recently obtained additional information on a product that has been available for some time, and this new data indicates that it may be possible to make the product that you, and many others have been seeking. To make a quick-drying gum solution for use as a wave set, it is necessary to replace a fair proportion of the water with a solvent that evaporates more readily. Alcohol, ethyl or isopropyl, is such a solvent. Unfortunately, alcohol is an active precipitant for gums, and the amount that can be added to the usual gum solution is quite limited. Additional information recently given us indicates that methyl cellulose offers considerable promise as a wave set component. This substance is a synthetic compound made by treating cellulose. Several varieties, of widely different viscosities are available, the highest viscosity grade being most highly recommended. A one to two per cent. solution should have viscosity comparable to the karaya solution widely used, and is made by first soaking the proper amount of methyl cellulose with a small amount of hot water and then stirring with cold water until a homogeneous solution is obtained. Make a mucilage this way so that it is much thicker than desired; add a small amount of glycerine, sorbitol, or a glycol to keep the final film flexible and prevent flaking, and then dilute to the proper viscosity with alcohol.

GLYCERINE SUBSTITUTE: We are finding it increasingly difficult to fill our relatively moderate glycerin requirements. Can you offer any suggestions as to substitutes that have the generally desirable properties of glycerin? New York.

We thought recently that we would write a little story about possible substitutes for glycerin, but first checked with several manufacturers, and now the article will have to remain just another sweet idea turned sour. Possible substitutes are for the most part just as tight as glycerine. For instance, propylene glycol is a natural substitute for glycerine, and the ethyl ether of diethylene glycol has also long been used in the same way. But the glycols require chlorine for their manufacture, and nobody is being at all generous about high priority numbers for cosmetic raw materials, and that's that. Sorbitol, a hexahydric alcohol made by the electrolytic reduction of glucose and closely related chemically to the trihydric alcohol glycerine, has properties that make it worthy of consideration. The commercial product is a thick, non-crystallizing syrup that is non-toxic and has hygroscopic qualities that are if anything superior to those of glycerine. It will absorb moisture only up to a certain point, after which it will begin to liberate it. Because of this, it is said to be far less likely to cause skin irritation because of excessive dehydration. Another type of product worthy of investigation is glucose or invert sugar syrup. These are also free from any suspicion of toxicity and have desirable hygroscopicity.

VANISHING CREAM DEODORANT: I wish to make a greaseless deodorant cream and would appreciate any suggestions you might feel free to offer for the formulation of such a product. Boston.

A vanishing cream, greaseless deodorant can be made by incorporating about three per cent. of hexamine in any suitable vanishing formula. The hexamine is dissolved in part of the water withheld from the batch and the solution stirred into the finished cream. There are occasional complaints of irritation after the use of products containing this active ingredient. Astringent anti-perspirant creams contain aluminum salts in an acid-type vanishing cream base. A specific recommendation unfortunately cannot be given but experiments with pure glyceryl monostearate and an acid stable emulsifying agent should result in a satisfactory cream base.

HYDROPHIL BASES AND SULFONATED OILS IN OINTMENTS

By the use of new waxes and synthetic wetting agents, the author has improved ointment bases, oil-in-water emulsions, lotions and cleansing creams. Lanolin and petrolatum ointment bases present the disadvantages of inactivating medicinals, interfering with skin metabolism and are difficult to remove. To obviate these disadvantages an improved oil-in-water base is formulated from white wax, tegolan (a synthetic wax + 40% cholesterol), cetyl alcohol and peanut oil. A greaseless ointment base, resistant to strong acids is prepared from Tegacid (acidified glyceryl monostearate). Disadvantages of the usual aqueous lotions such as high surface tension or presence of irritating alcohol and insulating vegetable gums, may be remedied by the use of Aerosol O.T. (dioctyl ester of sodium sulfosuccinate) and diethylene glycol. Aerosol O.T. is also excellent for preparing oil-in-water emulsions. Oral test with rats and application to human wounds have shown Aerosol O.T. to be non-toxic. Soapless detergents and cleansing creams made from sulfonated fixed oils are proving less irritating and generally more useful than the older type with alkali and triethanolamine soaps. *Elmo D. French. Southern Med. J., 34 (1941), 284-287.*

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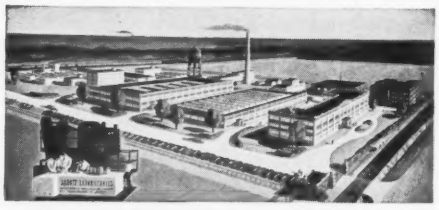

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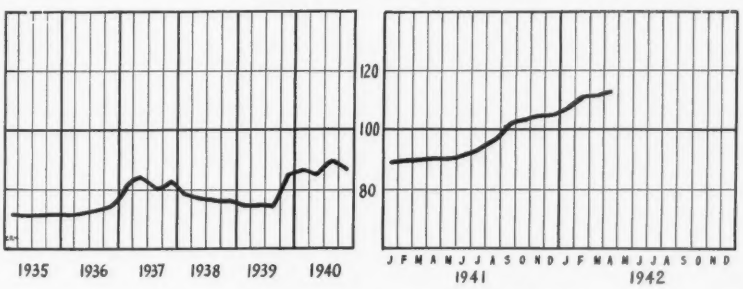
Pyrethrum flowers 4c
Saffron Valencia $1
Sandalwood oil 35c
Spearmint oil 10c
Stearic acid TP ¾c
Tragacanth gum No. 1 25c
No. 2 15c
Vanilla beans Mex. whole 50c
Wormseed oil 35c

Down

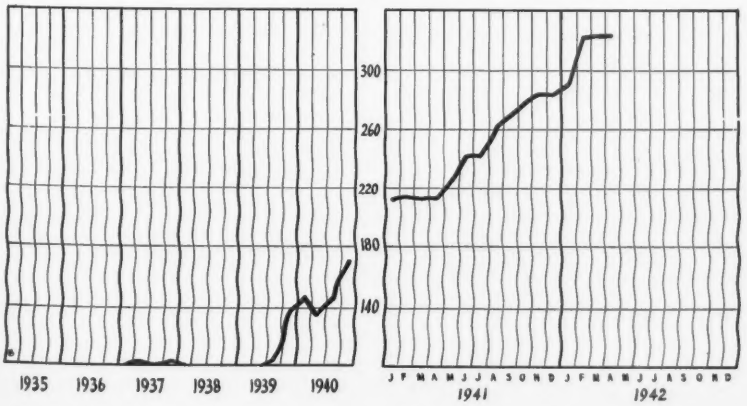
Dandelion root 3c
Ergot 20c

25 Cosmetic Raw Materials—Unweighted Price Index. 1926=100.



The cosmetic raw materials index advanced to 113.0 from the previous 111.5. Balsam Peru rose 20 cents a pound to $1.45; menthol was up to $13.50; stearic acid TP advanced to 18½ cents and gum tragacanth rose 25 cents a pound to $4, a new high for this item. Gum tragacanth is obtained from the Near East, an area which is definitely involved at present and likely to become more so before the end of this Summer.

15 Botanicals—Weighted Price Index. 1926=100.



The botanicals index declined fractionally to 322.0 from the previous 323.0. This was occasioned by the reduction of 20 cents a pound in the spot market price of ergot, this item now being offered at $1.95. The only other change in this group was an advance of 5 cents a pound in the price of ipecac which is now selling at $1.55. Dealers were anxiously looking forward to replacements this summer.

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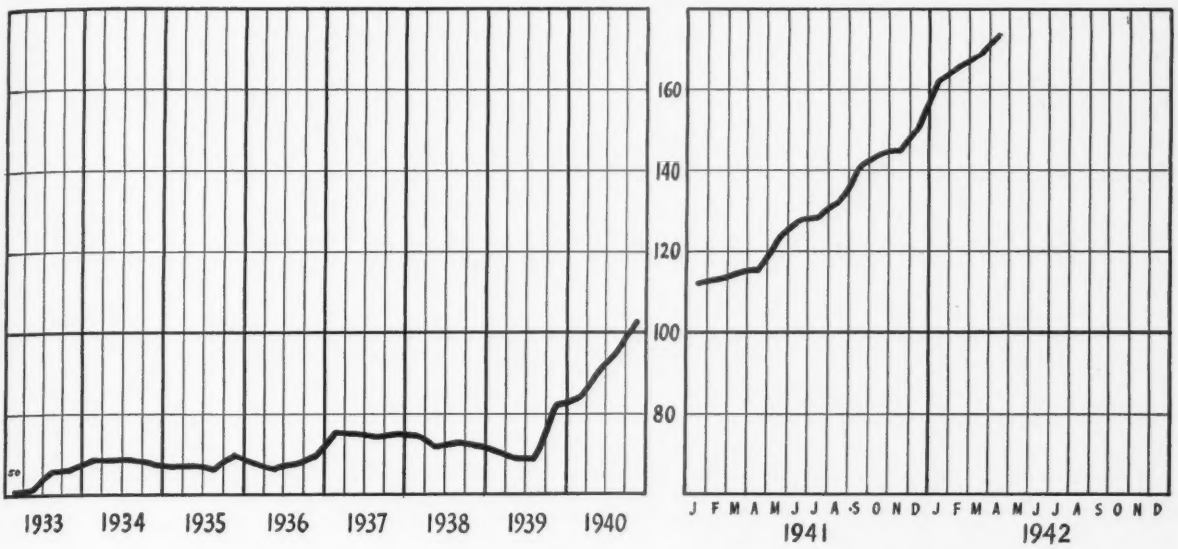
50 Raw Materials—Weighted Price Index. 1926=100.



The price index of fifty commodities for March, 1942, increased to 173.8 from the previous 168.5. The growing shortages of many raw materials obtained from abroad again drew attention to Western Hemisphere sources. The governments of the American republics have already taken the preliminary steps in a program designed to bring about production of many of these items. It is to South America that we must look, particularly for oils used in the manufacture of perfumes and other toilet articles.

• Prices quoted in this section were current on the first of this month.

MENTHOL

Another industry turned to the American farmer as a source of raw materials when the Vick Chemical Company placed an educational order with an essential oil refiner for menthol to be extracted from domestic peppermint oil.

This marks the first commercial use of American peppermint oil as a source of menthol, a news release from the Vick Chemical Company stated. Menthol is widely used as a medicinal chemical, principally for the treatment of colds. It is expected that substantial re-orders will be placed in the near future.

Heretofore, menthol has been imported from Japan and China. Experts are of the opinion that the American farmer will retain this new customer. They point out that chemical research has developed new methods of extraction and menthol users show a growing desire for a purely domestic source, the report stated.

"If all menthol users turned to peppermint oil—and the course of war points to some such action—growers of this specialty will have added a large new market. Some 500,000 pounds of menthol was used last year, and essential oil men estimate that it would require at least 1,000,000 pounds of peppermint oil to yield an equal amount of the same grade menthol. At this rate, the market for peppermint oil would be approximately doubled, for roundly 1,000,000 pounds of mint was harvested in 1941.

"Farmers in Indiana and Michigan, growing nearly 80 per cent. of last year's crop of peppermint oil, will be the greatest beneficiaries of this new demand. West Coast producers account for 20 per cent. of output, with Oregon and Washington the major growers.

"A sharp increase in plantings of American peppermint this Spring will be necessary to handle the rising demand on the part of menthol users. One plan that has received strong backing in some quarters calls for the extraction of only the excess menthol from peppermint oil, leaving the residual oil for use as flavoring by chewing gum and tooth paste manufacturers. The menthol content of the peppermint plant can be boosted 5 per cent. to 10 per cent., refiners say, by harvesting the crop 10 days later than usual.

"Accurate estimates of the increase in plantings necessary to meet the greater demand for peppermint are unavailable. It is thought in the trade, however, that a one-third boost in the 1942 crop is essential to take care of the minimum immediate demand. Further substantial expansion of acreage would be required to meet the mounting demand in future years.

"Commercial users expect further increases in prices for peppermint oil, despite large production, because of mushrooming demand.

"Trade circles believe it will take two years for the mint harvest to be increased sufficiently to meet all demands. However, more than a year's supply of menthol is on hand. This will act as a buffer until large-scale production and refining of mint oil is attained."

Until late in the trading period under review, peppermint oil prices had been declining under the threat of a price ceiling. The O.P.A. recently called

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farmers, dealers and others interested to attend a conference in Washington to discuss prices and conditions in menthol, and a price of $5 had been mentioned as a possible ceiling.

Since that time the oil market declined from around $6 a pound to the recent low figure of $5.30. Many believed that the market would continue to decline until it reached a $5 level, but a sudden flurry in activity developed in the country, and in view of growing fears that farmers would eventually curtail production, a reversal in the trend advanced the market about 10c a pound. This was the first upward movement in several months.

As the most important essential oil produced in the United States, peppermint enjoyed a good export demand abroad prior to the outbreak of the war. In 1934 exports of the flavoring material amounted to 168,000 pounds, and in 1936 exports established a fifteen year record during which 386,000 pounds or more than 40 per cent. of our total domestic output of the oil was shipped to foreign markets. In 1930 only 20 per cent. was sold abroad.

Output of peppermint oil averages around 500,000 pounds annually, but in a few exceptional years has run over 1,000,000 pounds.

Factors in the production of essential oils who have previously done some experimental work with the extraction of menthol from domestic peppermint have concluded that it takes approximately 3 pounds of oil to produce one pound of menthol. On this basis it would require 1,500,000 pounds of American peppermint to produce domestic requirements of menthol during an average year. Production, therefore, would have to be increased by the above stated amount in order to supply this market with natural menthol.

Spot stocks of natural menthol are at the lowest level since the war started, it being stated that not more than 120 cases are still unsold here. With no foreign material in sight for a long time the current market price of $13.50 in case lots indicates, not the true price position when based on a supply and demand basis, but rather the fear that, should quotations rise to within a level in keeping with the true statistical position, some governmental action would certainly be forthcoming to either set a price ceiling or to redistribute existing holdings among a larger number of consumers. It would not come to the industry as a great surprise if both these possibilities would eventuate.

QUININE

The announcement by the Reconstruction Finance Corporation that 500,000 ounces of 2,000,000 ounces of quinine that it purchased on the recommendation of the War Production Board had been lost at sea drew attention to America's situation with regard to this highly essential drug.

That situation became an emergency one with the loss of the Netherlands Indies, which supplied the world with 90 per cent. of its cinchona bark and derivatives, including quinine.

It is believed that the Netherlanders were able to destroy the factory at Bandung that had furnished most of the world's annual consumption of 33,000,000 ounces of quinine, and probably a good deal of cinchona bark, but to apply a complete scorched earth policy would mean the cutting and burning of probably 70,000 acres of green trees, along with their roots.

The United States under normal conditions consumes more than 3,500,000 ounces of quinine annually. Some of it goes into hair tonics and cold remedies. It is believed that the trade and private consumers between them have about a one or two year supply on hand. In addition to this the Government has built up a stock pile generally considered sufficient for from two to three year's requirements.

Cinchona bark is also obtainable from Peru, Bolivia, Brazil, Venezuela, Colombia and Guatemala. During the last few years, however, the American Government and private American drug interests have fostered experimental work looking toward the production in South America of higher yielding types of cinchona.

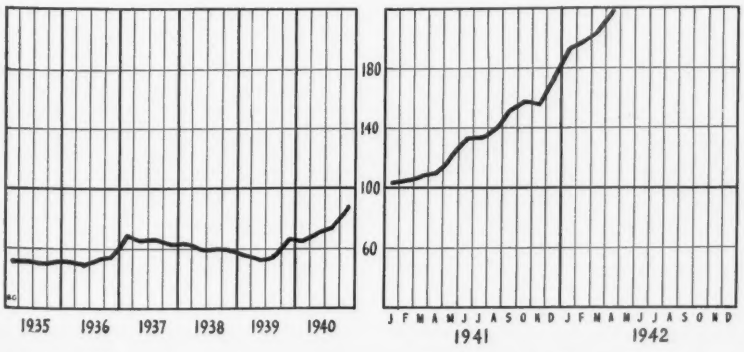
They had to start almost from scratch. Commercial production of quinine products from wild cinchona trees in South America was begun last year by an American firm but the first commercial harvesting of high grade bark from the new plantings in tropical America is still several years away.

There is an acceptable substitute for quinine called atabrine. Facilities for production of atabrine, it is reported, are being increased 8,000 per cent. above the pre-war capacity in this country. It was further reported that whereas one ton of quinine is sufficient for the treatment of from 30,000 to 100,000 cases of malaria, one ton of atabrine provides adequate treatment for 600,000 cases.

MERCURY

Consumption of mercury declined from 3,900 flasks in December 1941 to 3,800 in January 1942, while production was falling from 3,900 to 3,700 flasks. Certain strategic materials, including mercury, were placed under import control late in December. General Import Order M-63 provides that, unless otherwise authorized by WPB, contracts for imports of these materials will be handled by the Metals Reserve Company. Conservation Order M-78, issued by WPB in January, limited the use of mercury for all purposes not con-

15 Essential Oils—Weighted Price Index. 1926=100.



The essential oil index was up 219.1 from the previous 207.7. Anise oil advanced sharply to $3.70 a pound; cananga rose $3 a pound to $18; citronella oil was much higher at $1.70; geranium rose $5 a pound to a new high of $25 and sandalwood oil showed a further increase to $6.60. Strength in the market as a whole was predominant.

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sidered essential. Mercury prices throughout the month averaged $202.519.

Stocks in consumers' and dealers' hands, calculated from reports covering 93 per cent. of metal on hand at the end of December, amounted to 12,900 flasks and producers' stocks were at least 573 flasks Stocks of metal in the hands of consumers of redistilled metal only at the end of December were 1,600 flasks in addition to those reported above.

VANILLA BEANS

Approximately 350,000 pounds of Bourbon vanilla beans originally shipped from Madagascar last October, finally arrived in New York. The arrival of this shipment was anxiously awaited by importers as spot stocks of all grades of vanilla were dangerously low. It should be pointed out, however, that while these Bourbon beans relieved what would have been a serious situation, most of them were sold prior to arrival, so that the spot position on unsold beans has not been greatly improved.

The fact that these Bourbon beans were aboard ship for somewhat close to six months, lead to rumors in the trade that the quality on arrival would prove to be poor. Importers here, however, were enthusiastic over the fact that the beans had been particularly well packed, one factor making the statement that the quality of these beans is the highest received from Madagascar during the past five years.

As far as Mexican beans were concerned the situation continued without much change. The primary market continued high—in fact the asking price there was the equivalent of $20 a pound laid down in New York for whole beans.

Very few Mexican whole beans are available although some arrivals of cuts are expected in the next few weeks. The Mexican crop this year is not expected to exceed from 100,000 to 120,000 pounds in comparison with an average production there of about 250,000 pounds.

The following price schedules now prevail on spot: Bourbon beans $13.50 to $14.00; Mexican cuts $14.50 to $15.50; Mexican whole beans $16.50 to $17.00 a pound.

BEESWAX

Although appreciable amounts of beeswax are available in Mexico and shipments have been made to the United States for many years, there is no association controlling the trade as is the case with candelilla wax. Imports of beeswax into the United States from Mexico have been upward for the most part during the last 10 years. Figures are as follows: 1931, 22,900 pounds; 1937, 247,100; 1940, 189,500; and for the first 9 months of 1941, 183,800 pounds.

BRAZIL

The first exports to the United States of essential oils from Brazil, mainly citrus fruit essences, did not meet with the standard types required by American consumers, and the shipments were reduced up to the beginning of 1941. Because of this situation some modern plants for essential citrus oils were built, and some others will go into production during the current year.

The products now in the market meet the vigorous standards established by American users, and exports during 1941 amounted to about 90,000 kg. against 13,400 kg. in 1940 and only 5,234 kg. in 1939. Exports during the current year, it is estimated, will be around 200 metric tons when the new factories go into operation.

Cultivation of pyrethrum in Brazil is relatively recent. The first plantations started to produce in 1936, and the 1941 crop amounted to more than 800 metric tons. The local consumption of pyrethrum flowers is estimated at about 100 metric tons, the balance being exported—to the United States, Germany, and Great Britain in 1940. Users of pyrethrum flowers in the United States are giving preference to the Brazilian product due to the high percentage of pirethrius contents. Because of present world conditions, exports of pyrethrum flowers from Brazil will probably replace those from other producer countries.

ALCOHOL

The over-all inventory position for ethyl alcohol has increased during the past month and considerable further additions are now indicated. The augmentation of ethyl alcohol production facilities by the addition of the output of grain distilleries has relieved the supply position to some extent.

It is expected, however, that a program for stock-piling alcohol in Middle Western storage centers will be undertaken as insurance against possible curtailment of alcohol production from molasses on the Eastern seaboard. This may be brought about by delay in tank steamer deliveries from the Caribbean Sea.

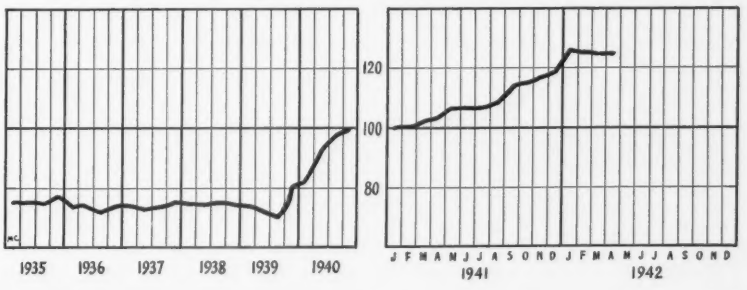
Prices on ethyl alcohol from grain and molasses have been pegged by ceilings. These prices are substantially double 1941 levels.

Amendment No. 3 to General Preference Order M-30 appears satisfactorily to have limited the use of ethyl alcohol by relating same to a base period and leaving certain essential consumers free to use unlimited quantity. Companion orders to No. M-30 are Orders M-54, regulating the supply of molasses, and M-69, providing for the production of distilled spirits from grain.

The entire program has resulted in increase of the over-all inventory position of ethyl alcohol and considerable further increases in this inventory are expected.

Medicinal chemicals index advanced to 125.0 from the previous 124.3. Natural menthol was up 50 cents a pound to $13.50, this representing the only price change in this group during the period calculated. The spot position of menthol is quite serious, it being said that not over 120 cases remain unsold here. The trend now seems to be toward production from domestic peppermint oil but it will likely take several years before enough peppermint oil is available to take care of the demand for menthol.

15 Medicinal Chemicals—Weighted Price Index. 1926=100.



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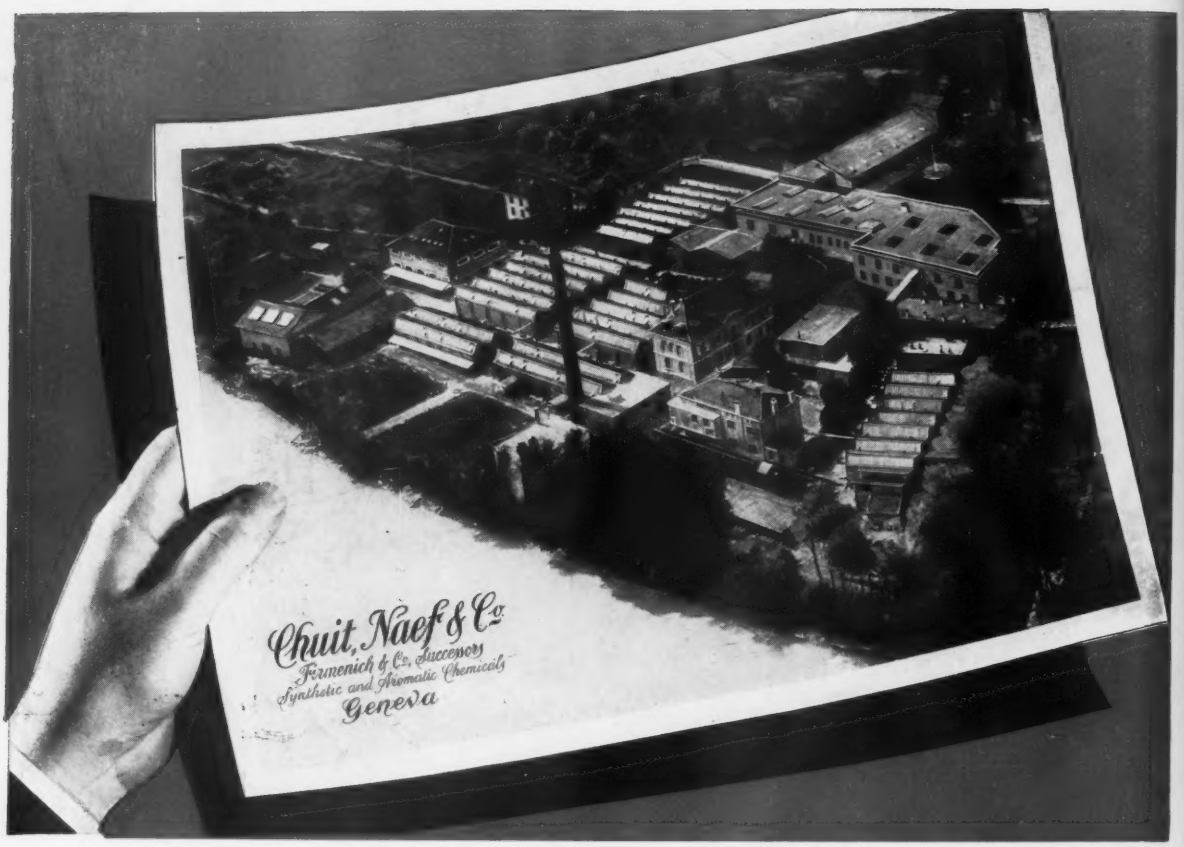

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